Staff Study No. 1
March, 1977

EXURBAN DEVELOPMENT IN SOUTHWESTERN ONTARIO

Prepared by the ECONOMIC DEVELOPMENT BRANCH
OFFICE of ECONOMIC POLICY
Ontario Ministry of Treasury, Economics and Intergovernmental Affairs

EXURBAN DEVELOPMENT

IN

SOUTHWESTERN ONTARIO

Forms and Effects Upon the Region's Rural Resources

by:

Ron Brown, MCIP

Regional Planning Branch
August, 1976

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ABSTRACT

As they become able to do so, many Ontarians move out to the country to live, while continuing to work in the city. This "exurban spread" has a considerable effect upon the economy of the countryside--on agriculture, on the mining of aggregates, and on recreation--about which the Government of Ontario is becoming increasingly concerned. This paper describes a method for analysing large-scale exurban development and applies this method to conditions in the Southwestern Ontario Planning Region.

Exurban development takes five major forms: rural subdivisions, severances, converted cottages, mobile-home parks, and converted farm houses. Data from the Ministry of Housing, the Census of Canada, Ontario Hydro, and TEIGA show that, whereas rural subdivisions occur close to urban areas, severances are more widely dispersed, while converted cottages and mobile-home parks tend to concentrate in certain areas. Within Southwestern Ontario. Essex is the county most affected by exurban spread, and it has been affected considerably. The effects appear in other major urban hinterlands studied, too, but are less pronounced.

The effect of exurban development upon agriculture varies. While relatively little farmland may actually be lost through development, farming can nevertheless suffer through the effects of farmland renting, lot fragmentation, and conflicts between exurbanites and farmers over farm practices. Recreational resources, although more distant from urban centres, may be lost to the public through private ownership of unique features or blocked access to them, as in the case of the Bruce Trail.

Mineral extraction, although badly needed, may be prevented through estate developments, which compete with extraction for scenic locations, and by local preventive by-laws. Forestry resources are useful for timber, recreation, and food production. Exurban ownership, however, may prevent such use through a desire to preserve the scenic woodlot.

The planning framework on the whole makes local municipalities responsible for planning through their official plans, zoning by-laws, and consent procedures, even though much of planning is a province-wide concern.

EXURBAN DEVELOPMENT IN SOUTHWESTERN ONTARIO

I. INTRODUCTION

This report describes the nature and extent of exurban spread into the rural part of Southwestern Ontario.[1] It also reviews the forms this phenomenon is taking at present and assesses its effects upon agriculture and other rural resources.

"Exurban spread" refers here to the movement of city people out to the country to live (but not to take up farming) and to the effects which these non-farm people with their city orientation have on the physical resources of the rural areas to which they move. Some of these effects have been studied in the past, but the phenomenon has not been reviewed as a whole before. The effects include:

- -- Land speculation, with
  - -- Increasing values of farmland;
  - -- Increasing proportion of rented famland; and
  - -- High proportion of small farms (less than 10 acres).
- -- The low-density spread of non-farm residences through rural areas and conversion of cottages to permanent use, with
  - -- Reduction of arable land;
  - -- Decrease in improved farmland;
  - -- A large number of vacant lots;
  - -- Increase in the amount of woodland; and often
  - -- Conflicts between farmers and rural non-farm people.

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[1] "Southwestern Ontario" is the Southwestern Ontario Planning Region, which includes the counties of Grey, Bruce, Perth, Huron, Oxford, Middlesex, Lambton, Elgin, Kent, and Essex. See Map 1. To identify the townships shown in outline on succeeding maps, see the fold-out reference map at the back of this report.

MAP 1. PLANNING REGIONS OF ONTARIO

This map of Ontario **not to scale** was developed by the Regional Development Branch, Ontario Ministry of Treasury, Economics and Intergovernmental Affairs

-- Change in agricultural emphasis away from growing food and toward "amenity agriculture," such as horse breeding, sod farming, or flower raising, with

-- A trend to weekend farming;

-- Conversion of farms to hobby farms.

As used in this report, "exurban spread" should be distinguished from both "urban spread" and "urban shadow." "Urban spread," or "growth" refers to the growth of the city itself: the new subdivision adjacent to the city and the shopping centre built next to the subdivison. The city's "urban shadow," on the other hand, influences the economy of the countryside beyond where the new buildings are going up. Land values increase, some farmers may give up farming and move to the city, and others may sell and stay on the land as tenants. "Exurban spread" is scattered urban growth--three or four non-farm residences here and there--within the urban shadow but beyond the area of true urban spread.

Among the major resources affected by exurban spread are farming, the mining of sand and gravel for construction ("aggregates"), and recreation. The Ontario Farmers Association has developed a Land Use Policy which expresses concern about the conflicts between farmers and "exurbanites" and asks the province for a land policy which will protect good farmland from the effects of urban growth.

The entrepreneurs of the aggregate industry are concerned that 90% of the potential aggregate resources of central Ontario are locked up by country estate developments and by pressures from the exurbanites on local councils to pass by-laws restricting the operation of pits and quarries.

Exurban spread has affected recreation, too. One of the more widely publicized examples is the objections of exurban land-owners to the Bruce Trail crossing their property.

Thus, exurban spread affects many provincial resources; however, it crosses the boundaries of numerous local planning units, which may not have either the legislation or the expertise to cope with it.

The present study discusses three aspects of exurban spread: it analyses various systems used to measure the effects of exurban spread; it describes these effects in the Southwestern Ontario Planning Region; and it describes the present government policies--local, provincial, and federal--concerned with exurban spread. It closes by reviewing ways in which existing legislation could be amended to balance the conflicting demands being made on Ontario's land.

II. BACKGROUND

A. GEOGRAPHIC PERSPECTIVE

Southwestern Ontario cannot be analysed in isolation. Its arbitrary boundary lines enclose only a small portion of the larger, rapidly urbanizing area of Southwestern Canada and the Northeastern United States.[1] Here Jean Gottman (6) described his "megalopolis," a contiguous urban and urbanizing region extending from Boston to Baltimore. Doxiadis (5) also described a megalopolis stretching from Chicago to Detroit and to Pittsburg-Cleveland, with a "Canadian Wing" between Detroit and Quebec City. The backbone of this Canadian portion is the transportation corridor: the MacDonald-Cartier Freeway, the Queen Elizabeth Way, the St. Lawrence Seaway, and several railways. Its major focus is the section which includes Detroit, Toronto, and Buffalo. The Canadian Wing is supported by a major limited-access highway, four major railway lines, and seven of the ten cities in Ontario whose population is greater than 100,000.

This situation has led to considerable urban growth in the Southwestern Ontario Region. London grew nearly 3% per year over the period 1961-1971; Windsor, 2.9%; and Woodstock 2.5%. During this time, the total provincial population grew by only 2.1% annually (and much of this growth was in the Toronto-Hamilton area). But these figures understate the actual growth implications. Growth did not occur solely in the large urban centres and their dormitory towns and villages, but also across the rural countryside.

Towns and cities more distant from major markets and transportation corridors grew at a slower pace during the same decade--Stratford at 1.8% annually, Goderich at 0.6%, and Owen Sound at 0.6%.

Some of the province's best rural resources are located in Southwestern Ontario--40% of Ontario's Class 1 and 2 farmland,[2] for instance. (Southwestern

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[1] Numbers in parentheses refer to the bibliography, which appears at the end of the report.

[2] The Canada Land Inventory's Soil Capability for Agriculture classifies land in terms of its composition, topography, and climate. A Class 1 soil has "no significant limitations in use for crops." Class 2 soils, however, have "moderate limitations that restrict the range of crops or require moderate conservation practices"--a sandy soil, for instance, or one hilly enough to require contour plowing.

Ontario also has the province's longest growing season: over 150 days.) Sauble Beach and Grand Bend have excellent beaches, as do several smaller stretches of the Lake Huron shoreline. Unusual floral and faunal ecosystems abound at Walpole Island, Point Pelee, and the Bruce Peninsula. Some of the Niagara Escarpment's most important resources occur in the study area, including the ski hills of the Beaver Valley and Collingwood areas, scenic terrain, streams, waterfalls, and unusual geological formations. Exurban development tends to limit the effective use of these resources (see Chapter V).

B. HISTORICAL PERSPECTIVE

In the past, people tended to work in one of a large number of small places and to live where they worked. Employment was not centralized as it often is now in a few large centres, and the transportation system did not encourage commuting. Public transportation was less extensive, proportionally fewer people owned cars, and the road network was a system of inefficient, generally unpaved, two-lane "highways." In conjunction with this, the family farm continued to be economical, with little income supplement required.

Then through the fifties and sixties a number of changes occurred. Wages increased, more people acquired cars, highways were widened and made to bypass towns, and the four-lane freeway appeared. Urban wage rates increased faster than did those in the country, and thus the city became more attractive, as well as more accessible. Cities expanded at accelerating rates, and land and housing costs increased. The traditional farm became less attractive economically, and farmers began to look to income supplementation. Some found it in off-farm work, others in the increasing prices paid for rural land. New life-styles affected the traditional rural ways. Cities were no longer entities unto themselves but were quickly evolving into interacting urban systems with extensive suburbs, dormitory towns, and rural non-farm populations.

Southwestern Ontario has developed urban systems focussing on the major centres, London and Windsor, which are linked by the MacDonald-Cartier Freeway. It is around these centres that exurban spread has been most notable. It has been less pronounced around the smaller centres of Chatham, Sarnia, Stratford, and Owen Sound.

Around all of these centres, the direct consumption of rural resources for urban growth has been less deleterious than the indirect effects of exurban spread. Such effects as land fragmentation, amenity agriculture,[3] the increasing value of farm land, and conflicts between exurbanites and farmers are felt far beyond the immediate areas of urban land consumption.

C. PREVIOUS STUDIES

1. Gottman

Jean Gottman's study of the Northeastern Megalopolis (6) was one of the first to point out that urban growth takes the form of a network of urban centres whose effects reach far beyond their actual geographic limits. These effects include:

--The hobby farmer: "With growing affluence and shorter working hours in the cities, more people can afford...rural estates...part-time farms on which they may establish their year-round residence."

--Change in types of agriculture: "Commercial farmers in Megalopolis therefore usually specialize in livestock or crops of high value such as vegetables, fruits and nurseries" also "items grown under glass, landscape nursery stock, and flowers, mushrooms, bulbs and flower seeds."

--Strip development: "because [sparsely distributed rural residences] have held much attraction for families who can afford them, many rural roads have been transformed into loosely and irregularly built-up avenues... . If this trend were to continue...the rural advantages that attracted people to such areas may be lost in a few years."

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[3] "Amenity agriculture," as used in this report, refers to those uses for agricultural land which directly serve the play-time activities of non-farm people: riding stables, for instance, horse-raising, and possibly flower-raising and sod-farming. The phrase does not include raising food, even fruits and vegetables for sale at roadside stands, as this is an "agricultural" use of the land.

--Rapid rise in farmland values: "Frequently the ribboned extensions of one merge with the threaded advances of another...farms...caught in such a network..gain a residential value that exceeds their agricultural worth. They may become more valuable to the commuter than to the commercial farmer. Or...the farmer becomes a commuter and only incidentally a tiller of the soil."

--Trend to rented farmland: "Because these high land values introduce a strong element of speculation, tenancy is sometimes high. The working farmer may be unable to finance ownership of land that is priced beyond its agricultural worth. Rentals, however, are usually low."

2. Crerar

In 1961, A. D. Crerar (3) published a study of farmland loss in the metropolitan areas of Canada: "All metropolitan areas with over 100,000 population in Canada would be examined. Starting with the core city and moving outward, the suburban areas and rural municipalities would be studied successively... . The first rural municipality moving outward from the centre of the city which exhibited no decrease in farm acreage or registered an increase was considered to close the boundary of the range of influence of metropolitan growth." As 14 years of more refined research have passed since this publication, it is easy in retrospect to pick out what are today obvious limitations to this simple analysis. Farmland loss can be due to many factors other than urban influence, including physical conditions, distance to markets, marketing conditions, inefficient farming, and size of parcel. Conversely, the effect of metropolitan growth upon farmland includes much more than mere farmland loss: speculation, high farmland values, amenity agriculture, neighbour conflicts, land fragmentation. While recognizing that more farmland was lost to agriculture than was actually required for urban uses (approximately 108 acres per 1,000 increase in population), Crerar did not describe the form this wastage takes. Nor did he consider special-use acquisitions of farmland unrelated to urban expansion.

3. Hind-Smith

Joan Hind-Smith (7) did not consider "farmland loss" an adequate indicator of urban influence, but rather preferred the term "urban shadow," "which includes not only farmland lost but farmland which is in some way under pressure from the urban land market." In addition to listing forms of "direct" urban development, Hind-Smith offered four indicators of "indirect" urban development:

"--Undeveloped subdivisions

"--Non-farm ownership of farmland

"--Farmland for sale for non-farm purposes

"--Non-farm assessment of farmland."

After analyzing the four centres of Kingston, Lindsay, Stratford, and London, Hind-Smith concluded that "from the point-of-view of the impact of urban growth on agricultural land, the 'unseen' influence of the town is more important than the tangible evidence of land used for building."

4. Pearson and Dhams

In co-authorship with Dr. F. Dhams, Norman Pearson (4) reviewed urban fringe characteristics in the rural areas around the Metro Toronto Region and refined the list of effects still further to include:

-- Conversion of farms to hobby farms

-- Conversion of many former farm-houses and rural places to specialized residential communities for permanent homes and weekend cottages.

-- Intense speculation

-- Reduction in the amount of arable land

-- Wide range of rural land prices

-- Amenity agriculture

-- Cottage conversion to permanent use

-- More intensive and more varied recreation uses.

While this expanded list is much more comprehensive, several of the effects listed lack any means of statistical measurement. In addition, it would be impossible to compare the indicators with each other statistically at a township level, or even to compare urban regions, though these may consist of several townships.

5. Russwurm

Lorne Russwurm (20), on the other hand, has recently published a list of indicators chosen because they lend themselves to statistical analysis. They are based upon categories used in the Statistics Canada Census of Agriculture.

"--Percent farmland rented: As non-farm population increases, an increasing portion of the land will be rented.

"--Acres of improved land per farm: As non-farm population increases, acreage of improved land per farm is expected to decrease.

"--Small fruits, vegetables, and nursery products: Since the market for these products is largely in nearby urban areas, as urban demand increases, land devoted to these crops will increase.

"--Value of farm land and buildings: The greatest increases in farm capitalization should occur in townships having greatest increase in non-farm population, as urban growth tends to drive up the dollar value of nearby land.

"--Full or part tenant: More tenant arrangements can be expected as non-farm influences increase.

"--Woodland on Census farms: Woodland should occur as non-farm population increases, because urbanization creates idle land which becomes woodland."

After a correlation analysis, Russwurm found that the variables correlating most closely with an increase in the rural non-farm population were (a) an increase in the amount of rented land, the number of tenant farms, and the value of land and buildings, and (b) a decrease in the amount of improved farm land.

6. Punter

A recent thesis by John Punter (16) analysed in some detail the impact of "exurbia," or "urban workers living in rural areas," on the land and landscape in the Toronto-Centred Region. He selected as study areas the townships of Caledon, King, Pickering, and Whitby. Punter's list of variables which indirectly measure the extent of exurban influence and can be studied through Census sources include:

--Percent of unimproved land

--Percent of woodland

--Number of farms less than nine acres in size

--Number of farms with machinery valued at $450 or less

--Number of farmers working more than half the year off the farm

--Amount of rented land.

Punter obtained additional information from Ontario Hydro's records of "Low Density Rural Hydro Customers" and from the Ministry of Housing's yearly questionnaires to all municipalities, which ask the number of severances permitted by land division committees or committees of adjustment.

As to the effect of exurbanization on agricultural land use, Punter notes: "The main impact has been to diversify its character and ownership structure rather than to reduce its actual extent... [in certain areas] agriculture was on the decline prior to urban developments...much of the land sold by farmers has been retained, and in many cases reclaimed for agriculture by the new owners. However, rented land did increase dramatically. Land was rented to agricultural companies, and expansion-minded farmers, and renters include both residents and investment/development companies." (p. 319)

Tenant farming increased during Punter's study period. In nearly all cases, the tenants were the farmers from whom the new non-farming owners had purchased the land.

Punter also reviewed some aspects of the effect urban spread has on the landscape, such as facilities for private recreation (e.g., tennis courts), lawn decorations such as statuary, and landscaping.

The increase in amenity agriculture coincided with an increase in the non-farm population in Punter's study area. It included growing nursery stock and breeding horses and pet animals.

7. University of Guelph

Through a broad statistical analysis of agriculture in southern Ontario (21), the authors found certain statistical indices of urban impact on rural lands, including:

--Change in the relative amounts of improved and unimproved farmland

--Losses of farmland to urban uses

--Spread of low-density residences (one-family houses)

--Distribution of part-time farming

--Value of land, and of land and buildings.

The advantage of this approach is that, while the data for studying smaller areas can be readily gathered from local sources such as assessment offices, the data used in the Guelph study were suitable for use in a broader regional framework.

While the studies discussed previously confined themselves to urban impact in special areas, the Guelph study broadens its scope to include all of southern Ontario and all forces affecting the agricultural economy there.

III. METHODOLOGY AND DATA SOURCES

The analysis of data in the following chapter is divided into two parts. The first lists various sources of information about exurban development; the second is a statistical analysis of the effects of exurban spread upon the rural resources of Southwestern Ontario.

To ensure that all the data in this report are consistently defined, they are taken from central, readily available sources.

A. SOURCES OF INFORMATION ABOUT EXURBAN DEVELOPMENT

Exurban development takes several forms: residential lots created by rural subdivision and severance,[1] infilling through subdivision or severance in small towns and villages, conversion of summer cottages to permanent homes, mobile-home park developments, and farm-house conversions. New cottages constitute a form of potential exurban spread, as the owners can at any time convert the buildings to year-round use. Indicators of the main directions of exurban spread are obtained by comparing the change in non-farm population densities by township between 1961 and 1971. Where urban municipalities annexed portions of adjacent rural municipalities over this period, so that some farms disappeared from the records of the latter, but did not go out of existence, data were adjusted accordingly. Where data were not adjusted, for lack of information, the text explains discrepancies due to annexation.

Data were obtained from a wide variety of sources.

1. Urban Centres

Statistics Canada publishes data for all incorporated and unincorporated urban centres with more than 50 persons. Special printouts are available for centres under 50. It was thus possible to compare growth of towns, villages, and hamlets with exurban scatter into rural areas.

2. Subdivisions

The Ministry of Housing maintains records of subdivision applications, including the exact location of each proposed subdivision, how large

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[1] "Subdivision" divides an entire parcel of land into residential lots; "severance" creates a single residential lot, but leaves the rest of the parcel intact for its original non-residential purposes.

an area it covers, how many lots it includes, and whether the application was accepted or rejected. The numbers and locations of subdivisions and lots were computed for the period from January 1, 1969, to December 30, 1974. The results enable the number of lots created in rural areas to be compared with the number of lots created in urban areas.

3. Severances

It is difficult to get accurate data about severances. Since 1964 the Ministry of Housing has sent annual questionnaires to all committees of adjustment, land division committees, and planning boards, asking, among other things, how many consents the municipality granted over the year, whether a new lot was created as a result, and what use was proposed for the lot.[2] The results, though useful, do not give a complete picture of severances in Ontario. Not all municipalities had one of the above three bodies before 1972; not all questionnaires were returned; not all returned questionnaires were completed. Where complete information could not be obtained through these questionnaires, it was necessary to seek other records.

When the relevant consent-granting body grants a consent, it must so inform the Ministry of Housing, which lists the consent under the name of the municipality and notes whether a new lot was created. If it was, its location and lot line are plotted on a topographic map (scale 1:50,000).

4. Strip Development

There are no available data for "strip development" per se. The Regional Planning Branch of the Ministry of Treasury, Economics and Intergovernmental Affairs, however, has completed land use maps on a scale of 1:250,000, current as of 1968, which show strip development along major roads. This information is complemented by first-hand knowledge of strip development in Southwestern Ontario.

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[2] A "consent" gives permission to alter a building or land. A severance, which creates a new lot, is one form of consent, but not every consent is a severance. Other consents may give permission to enlarge a house, put up a barn, etc.

5. Mobile-Home Parks

In 1971, the then Department of Municipal Affairs published a directory of mobile-home parks, noting the number of spaces available, the general location of each park, and the number of years the park had been in operation. Changes have occurred recently in some areas (e.g., the Douglas Point area), and the present study has brought the original data up to date.

6. Rural Non-farm Population

Ontario Hydro lists the number of its rural non-farm customers in each township, and groups them into three categories: "rural high density" (ten year-round customers or more per section of road); "rural low density" (fewer than ten year-round customers per section); and "intermittent users." This study reviewed Hydro's data for 1961 and for 1971 to find the pattern of rural non-farm use during that interval. "Intermittent users" were assumed to represent cottages or chalets; the high- and low-density categories were combined to eliminate the confusion caused by category shifts.[3]

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[3] An example of this possible confusion: in 1961, Hydro might have 100 rural customers in Township X, 50 of them in rural low-density areas and 50 in rural high-density areas. If 10 of the low-density customers move out of the township during the next decade, Hydro's 1971 data will show fewer low-density customers--40, to be exact. If, on the contrary, 20 people move into the township during the next decade, all of them into an area occupied in 1961 by 10 of the low-density customers, they might convert that area to a high-density area. Hydro's 1971 data would then show 40 low-density customers and 80 high-density customers (the original 50 plus the 20 newcomers plus the 10 customers who were there all along but have now been shifted into the "high-density" category). Whether people move in or move out, Hydro's data in such a case would still show the same reduction in low-density customers. If the categories are combined, however, as they were in this report, the total shows correctly that the rural population in Township X increased over the decade from 100 customers to 120 customers.

7. Hobby Farming

Data on farm-house conversions or hobby farming per se do not exist. However, it is inferred that, if a farmer is engaged in off-farm work (for which data are available) for more than 229 days per year,[4] then his agricultural pursuits are clearly secondary. Statistics Canada and the Ontario Ministry of Agriculture and Food provide data on the number of "farmers" engaged in off-farm work and the period of time involved. While many "farmers" listed in this category may once have been bona-fide farmers who for economic reasons have sought alternative employment, certainly many are exurban "gentlemen farmers," who have moved from the city to live in the country. These may include retired people or commuting professionals to whom farm income represents a convenient tax write-off. This study considers both as "weekend" farmers since they actively "farm" only very few days per year. It also considers the process of such farm conversion as a form of exurban spread.

8. Residential Building Permits

Statistics Canada issues monthly and yearly summaries of "residential building permits" classified according to the type of residence (apartment, single detached house, cottage, etc.). However, as these summaries cover only a small proportion of the townships in Southwestern Ontario, these data were excluded.

B. EFFECTS OF EXURBAN DEVELOPMENT

A number of changes in a rural area can be used to indicate the effect of exurban spread upon agricultural resources. Statistical sources for such variables include the Statistics Canada decennial census publications and special tabulations by the Ontario Ministry of Agriculture and Food. Some of these variables are:

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[4]The figure of 229 days per year is based on Census categories: the Census of Canada groups the time farmers spend in off-farm work into five categories: fewer than 10 days, 10-50 days, 50-150 days, 150-229 days, and more than 229 days.

--Change of farmland area

--Change in amount of improved farmland

--Change in amount of rented farmland

-- Population density of horses and ponies

-- Value of land transactions

--Value of land and buildings

--Amount of off-farm work

--Number of nurseries and greenhouses

--Number of farms less than 10 acres in size

Although this study assumes that these variables reflect the effects of exurban development, it recognizes that other factors may influence them, too. (A farmer may give up farming, for instance, simply because his land is poor and higher costs make it impossible for him to farm it profitably.)

Similar statistical indices of exurban effects on other rural resources such as recreation, aggregates, and forest resources are not readily obtainable. However, the nature of these exurban effects is documented and the general geographic distribution of the resources is described later in this report.

IV. THE DIMENSIONS OF EXURBAN DEVELOPMENT

A. DIRECTIONS AND CONCENTRATIONS OF GROWTH

The population of Southwestern Ontario increased by 16% between 1961 and 1971, from approximately 1,021,000 to 1,180,000. Over two thirds of this growth (69%) occurred in Middlesex and Essex counties, particularly in and around the major cities of London and Windsor and their smaller dormitory towns. In fact, while 87.4% of all the growth in Southwestern Ontario occurred in the region's incorporated cities, towns, and villages, 60% of it occurred in the incorporated cities, towns, and villages of these two counties alone. Unincorporated hamlets and rural areas throughout the region gained only 12.6% of the total. (Note that this 12.6% represents a net growth: more than 12.6% of the newcomers to Southwestern Ontario moved to the country, but some country people moved to the cities, too.)

Since this study is concerned primarily with non-farm growth in rural areas, it pays special attention to data pertinent to these areas.

"Rural areas," for this study, include hamlets of 50 people or fewer, as well as the rural countryside. The census, however, extends this definition to include urban centres ranging in size from 50 to 1,000. In these census rural areas, the total rural population (farm plus non-farm), increased by 19,000 between 1961 and 1971. However, the population defined in the census as "rural non-farm" increased by 56,000. (The increase in "total rural population" is less than the increase in the "rural non-farm population" because the "rural farm population" decreased sharply during this decade, by 37,000.) Of the additional 56,000 non-farm people moving to the country, 13,000 settled in urban centres of 50 to 1,000. Therefore, the figure with which this study is concerned is the 43,000 who settled in hamlets of 50 people or fewer and in the countryside. Table I illustrates the population increases by county, while Table 2 shows the distribution of rural non-farm growth.

TABLE 1

GROWTH IN SOUTHWESTERN ONTARIO

1961 - 1971

County	Total Growth	Growth as a % of Regional Growth	Urban Growth	Urban Growth as a % of Regional Growth	Rural Growth	Rural Growth as a % of Regional Growth
Bruce	4,349	2.7	2,567	1.6	1,787	1.1
Elgin	3,746	2.4	3,390	2.1	358	0.2
Essex	48,182	30.2	37,834	23.8	11,792	7.4
Grey	4,398	2.8	2,630	1.7	1,770	1.1
Huron	- 854	-0.5	1,464	0.9	-2,319	-1.5
Kent	11,688	7.3	10,014	6.3	1,679	1.1
Lambton	12,183	7.6	10,383	6.5	1,801	1.1
Middlesex	60,592	38.0	58,789	36.9	1,804	1.1
Oxford	9,846	6.1	8,645	5.4	1,201	0.7
Perth	5,518	3.4	4,596	2.9	1,086	0.7
Totals	159,157	100.0	140,312	87.0	19,063	13.0

Note: Because the census figures are rounded, components may not add up to the total given.

Source: Statistics Canada: Census of Canada, Population, 1961 and 1971.

Special tabulations, Regional Planning Branch, 1974.

TABLE 2

RURAL NON-FARM GROWTH IN SOUTHWESTERN ONTARIO
1961 - 1971

County	Growth in Rural Hamlets[b]	Per cent of Rural Non-Farm Growth[a]	Rural Country-Side Growth	Per cent of Rural Non-farm Growth[a]
Bruce	1,104	2.0	3,469	6.4
Elgin	1,089	3.3	1,224	2.2
Essex	3,229	3.6	13,923	24.8
Grey	47	0.1	6,276	11.2
Huron	1,364	2.4	- 802	-1.4
Kent	825	1.5	4,503	8.0
Lambton	837	1.5	3,621	6.5
Middlesex	1,782	1.4	5,745	10.2
Oxford	1,996	3.6	2,002	3.6
Perth	937	2.6	2,872	5.1
Totals	13,214	22.0	42,933	78.0

[a]Total of Rural Non-farm Growth = 56,147

[b]Rural hamlets include those urban places with between 50 and 1,000 persons defined in the Census as "Rural non-farm."

Sources: Statistics Canada: Census of Canada, Population, 1961 and 1971.

Special tabulations, Regional Planning Branch, 1974.

At the township level, a mere six townships[1] of a total of 127 in the Southwestern Ontario Region accounted for fully one quarter of the region's rural non-farm growth (see Table 3). Of those six, five are in Essex County. Further, half of the study area's rural non-farm growth was concentrated in only 21 townships. With one exception, the latter are adjacent to, or very near, the major urban centres of London, Sarnia, Chatham, Windsor, and Owen Sound. The one exception is Collingwood Township, a scenic area where many ski chalets and retirement homes are being built and many cottages being converted to year-round use.

This record of the density of the rural population indicates the extent to which exurban development is approaching urban proportions.

As Map #2 shows, the highest rural densities are found in Essex County, especially near Windsor in Anderdon Township (105 persons per square mile), in Sandwich South Township (94), and in Sandwich West Township (218). Those figures represent significant increases since 1961; Anderdon and Sandwich South Townships each increased by 41 persons per square mile in that time and Sandwich West by 80. High rural non-farm densities occurred further from Windsor in Maidstone Township, with 65 persons per square mile (an increase of over 30 persons per square mile between 1961 and 1971), and in Maldon Township, which has 53 persons per square mile. Elsewhere in Essex County, densities generally exceeded 30 persons per square mile--an increase of 15-20 over the 10-year period between 1961 and 1971.

A pattern of relatively high rural densities appeared along axes from London to Woodstock and from London to Port Stanley. These densities were of the order of 20-30 persons per square mile. Along these axes, the major areas of rural non-farm population increase were west of London in Lobo and Delaware townships; east of London in North Dorchester, North Oxford, West Oxford, and Dereham; and south of London in Yarmouth. (While densities no doubt increased in those townships adjacent to London and Woodstock, annexations by those cities rendered the data difficult to interpret.)

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[1] Maidstone, Sandwich S., Sandwich W., Anderdon, Mersea, Raleigh. Refer to the fold-out reference map for locations of townships in Southwestern Ontario.

TABLE 3

MAJOR AREAS OF RURAL NON-FARM INCREASE

RANKED IN DESCENDING ORDER BY TOWNSHIP

Township	County	Percent of Study Area's Rural-Non-Farm Increase	Cumulative Per Cent	
Maidstone	(Essex)	5.15	5.15)	One-quarter
Sandwich W.	(Essex)	4.92	10.07)	of Regional
Sandwich S.	(Essex)	4.07	14.14)	Non-Farm
Anderdon	(Essex)	3.59	17.73)	Growth in
Mersea	(Essex)	3.48	21.21)	these six
Raleigh	(Kent)	3.48	24.69)	townships
Derby	(Grey)	2.56	27.25	
Sarawak	(Grey)	2.21	29.46	
Rochester	(Essex)	2.16	31.62	
Lobo	(Middlesex)	2.14	33.76	
Colchester S.	(Essex)	2.05	35.81	
Dorchester N.	(Middlesex)	2.03	37.84	
Gosfield N.	(Essex)	1.80	39.64	
Malden	(Essex)	1.70	41.34	
Plympton	(Lambton)	1.61	42.95	
Sombra	(Lambton)	1.59	44.54	
London	(Middlesex)	1.56	46.10	
Camden	(Kent)	1.50	47.60	
Collingwood	(Grey)	1.50	49.10	
Harwich	(Kent)	1.43	50.53	
105 remaining townships		49.47	100.00	

Source: Statistics Canada, Census of Canada, Population, 1961, 1971.

Regional Planning Branch, Special Tabulations, 1974.

SOUTHWESTERN ONTARIO STUDY AREA

MAP 2

INTENSIFICATION OF RURAL NON-FARM POPULATIONS

Densely populated and rapidly intensifying

Moderately dense but intensifying significantly

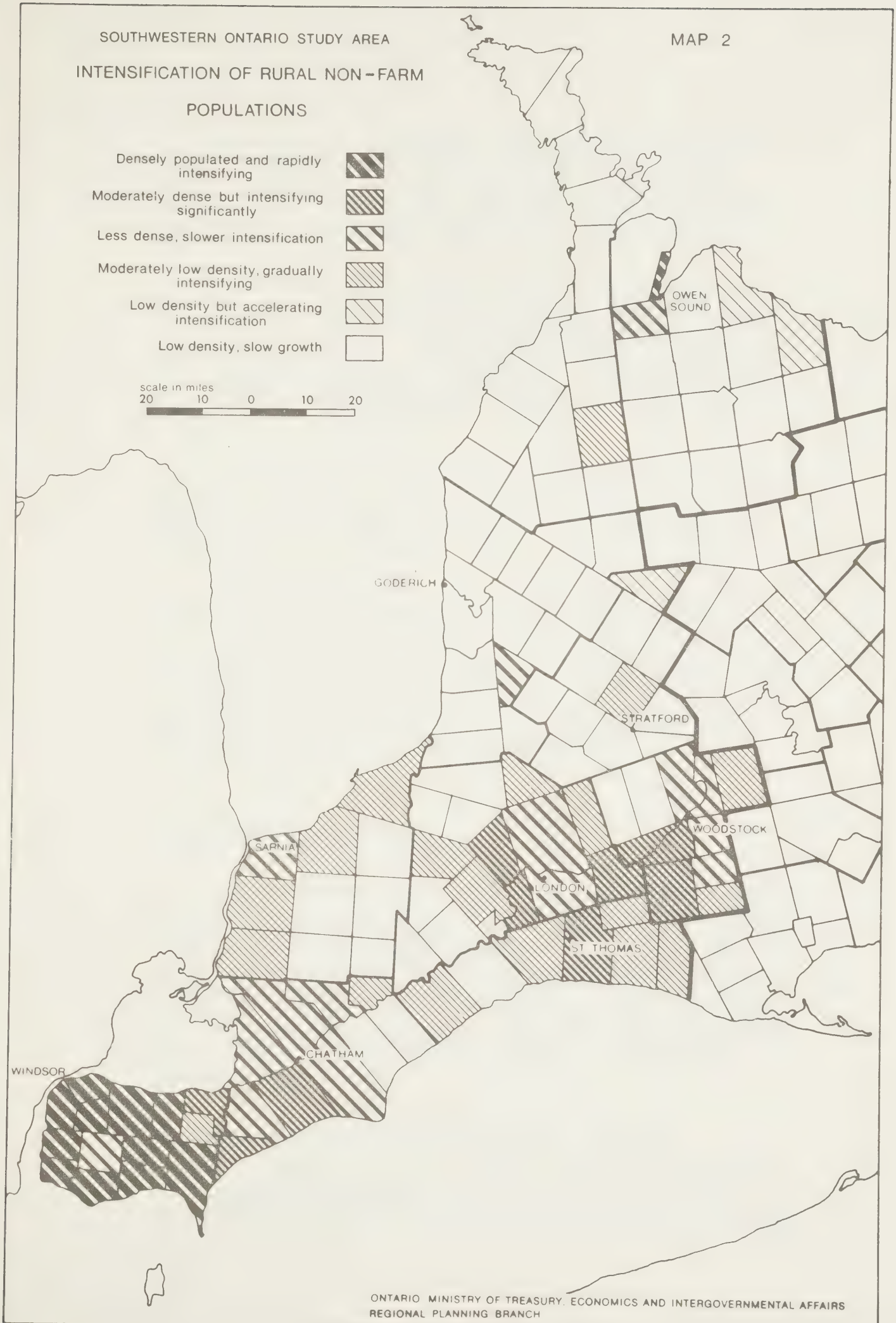
Less dense, slower intensification

Moderately low density, gradually intensifying

Low density but accelerating intensification

Low density, slow growth

scale in miles
20 10 0 10 20



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The density in Sarnia township was relatively high (29 persons per square mile), reflecting an increase between 1961 and 1971 of 10 persons per square mile. Increasing densities were evident to the east in Bosanquet and Plympton townships and to the south in Moore and Sombra townships.

The population density is relatively high in Kent County, especially in townships adjacent to the City of Chatham, where 15-30 persons per square mile were recorded. While sharp increases since 1961 appeared in both Raleigh and Romney townships, the slight statistical increases in Dover, Chatham, and Harwich townships were unrepresentative, again because of annexations.

Owen Sound's growth was reflected in the density figures for Derby and Sarawak townships (16 and 84 persons per square mile, respectively), with densities increasing markedly over the decade in Sarawak.

Low densities and slow growth describe the situation in the remainder of the study area, especially in the northern part of Huron County and the southern part of Bruce County, the Bruce Peninsula, the interior parts of Lambton County, and sections of Grey County. Slightly higher rural densities occurred in Brant Township (adjacent to the Town of Walkerton) and in Tuckersmith Township (the site of Huron Industrial Park).

B. THE FORMS OF RURAL GROWTH

To assess the implications of the growing rural densities, it is necessary to analyze the different forms this rural growth takes. Those forms for which data are available include rural residential subdivisions, rural severances, mobile-home parks, cottage developments, and, to some extent, cottage conversions (see Table 4). Data are not available for all cottage conversions, however, and are rarely available for such forms of growth as farm-house conversions.

1. Rural Residential Subdivisions (Map #3)

Between January, 1969, and December, 1974, proposals for the creation of 19,000 rural subdivision lots were submitted to the Ministry

TABLE 4

EXURBAN SPREAD BY TYPE OF LOT CREATION

(Yearly Average)

County	Lots by Plan of Subdivision (1969-1975)	Severances (to 1974)	Mobile-Home Park Spaces (1966-1971)	New Cottages[a] (1969-1975)[b]	New Cottages[a] (1961-1971)[c]
Bruce	6	242	49[d]	93	263
Elgin	90	72	3	0	2
Essex	226	254	53	0	- 77[d]
Grey	22	264	2	59	213
Huron	39	103	61	50	81
Kent	9	152	14	5	13
Lambton	186	130	0	9	58
Middlesex	89	258	12	0	1
Oxford	44	172	8	0	4
Perth	5	67	9	0	1
Region	716	1,715	212	216	560

[a]The "New Cottages" category actually represents the difference between the number of new cottages built and the number of existing cottages converted to year-round use, whose owners are no longer listed as Hydro's "intermittent" customers. In Essex, where many cottages were converted to permanent dwellings between 1961 and 1971, this difference resulted in a negative number of "new cottages."

[b]Approved cottage lots by plan of subdivision.

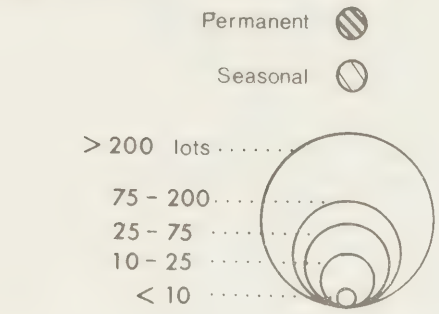
[c]Increase in number of intermittent users, according to Ontario Hydro user data.

[d]Up to 1974.

Sources: Ministry of Housing files
Department of Municipal Affairs, Mobile Home Park Survey, 1971
Ontario Hydro, user data, 1961, 1971
Huron County Planning Department
M. M. Dillon Limited

MAP 3

SOUTHWESTERN ONTARIO STUDY AREA
RURAL SUBDIVISION ACTIVITY
(no. of subdivision lots, by township, approved between Jan. 1969 – Jan. 1975)



scale in miles
20 10 0 10 20

OWEN SOUND
GODERICH
STRATFORD
WOODSTOCK
SARNIA
LONDON
ST. THOMAS
CHATHAM
WINDSOR

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of Housing. Of these, 6,400 were approved, 7,600 were rejected, and 5,000 are still pending.

Rural subdivisions clustered primarily near Windsor and Sarnia. A smaller cluster of subdivisions appeared near Leamington, while rural subdivisions in the London area were few and scattered. Specifically, of all rural lots approved, 12% were in the townships of Malden, Anderdon, and Sandwich West, 20% in Sarnia and Moore townships, 25% in the area between London/Woodstock/Tillsonburg and Port Stanley, only 2% in the small cluster near Leamington, and 3% in the Huron Industrial Park area. The remaining 28% were scattered throughout Southwestern Ontario. Rural residential subdivisions have tended to locate quite close to existing urban centres and thus are not significantly responsible for the increase in rural densities described above.

2. Rural Severances (Map #4)

Again, Essex County appears as a focus for heavy rural growth. In the Township of Anderdon, for example, an average of ten new lots per square mile has been created each year[2]; in Sandwich West Township and Sandwich South Township, more than eight; and in Maidstone Township, six. In the Sarnia area, only Sarnia Township itself had a significant number of severances, with six per square mile each year.

A very scattered effect is evident in the London area, with a concentration along an east-west axis between Woodstock and Glencoe, and extensions to Parkhill in the northwest and Port Stanley in the south. In most townships the yearly average was comparatively low--less than three severances per square mile.

In the Chatham area, only Raleigh and Camden Townships recorded rates approaching four new yearly lots. And near Owen Sound, Sarawak Township recorded almost five.

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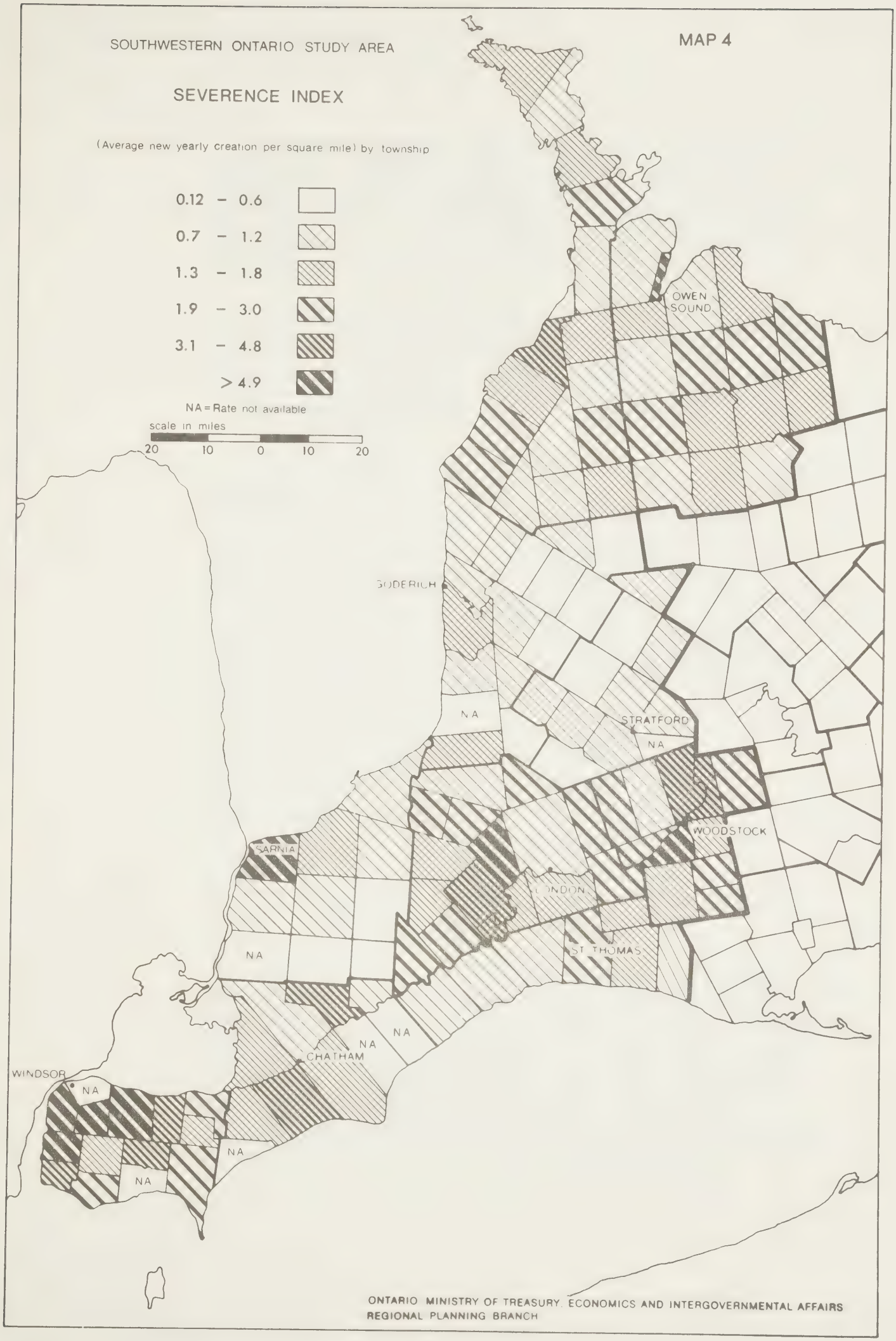
[2]Data on severances have been available at best only since 1969. As mentioned earlier, not until 1972 did every township have a committee of adjustment or land division committee. The "average figures" discussed in this section are averaged over the number of years for which data are available (to March, 1974). Thus, all data are averaged over at least two years, while the data for some townships are averaged over as many as five years.


SOUTHWESTERN ONTARIO STUDY AREA
MAP 4
SEVERENCE INDEX
(Average new yearly creation per square mile) by township
0.12 – 0.6
0.7 – 1.2
1.3 – 1.8
1.9 – 3.0
3.1 – 4.8
> 4.9
NA = Rate not available
scale in miles
20 10 0 10 20
OWEN SOUND
GODERICH
NA
STRATFORD
NA
WOODSTOCK
SARNIA
LONDON
ST THOMAS
NA
NA
NA
CHATHAM
WINDSOR
NA
NA
NA
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Townships near the Bruce Nuclear Generating Station at Douglas Point tended to have higher rates than surrounding rural townships, particularly the townships of Saugeen, Kincardine, and Huron. In all likelihood, this reflects an increased demand for housing to accommodate workers at the station.

Several rural townships in Grey County also showed slightly higher rates of severance granting. Poor farmland going out of production, combined with a heavy exurban demand for country estates near both the major ski hills and the scenic Niagara Escarpment, probably accounts for the higher rates.

It should be noted that the rate of severance granting does not strictly reflect local demand or urban shadow. Very often the rate reflects the attitude of local severance-granting authorities (i.e., land division committees or committees of adjustment) or local planning. Where local planning boards are lax, or do not exist, or where such authorities do not adhere closely to policies which do exist, the rate of severance creation can be quite high, while more concerned authorities will keep the rate low, even when demand is heavy.

Assuming an average of two acres per lot, whether these are created by severance or by subdivision, lot creation consumes over 2,700 acres of land a year in Southwestern Ontario. Should such a rate continue unabated, 36,000 acres of land will be consumed between 1971 and 1986, and 72,000 acres by 2001--this in addition to land taken up by subdivisions approved and severances granted prior to 1971. (Such land is not necessarily built on the same year permission is granted.)

The implications of such growth, particularly that created by severances, are serious. In addition to the loss of agricultural land, conflicts over farm practices arise between the farmers and exurbanites who may not like the dust from plowing or the smell of fertilizer; farms are fragmented until the fragments are too small to farm efficiently; weeds from vacant lots and fragmented units plague farmers; an increasing number of road

access points contributes to traffic hazards; increased commuting increases the cost of road maintenance and construction and of public transportation; the danger of pollution from concentrations of septic tanks increases; the appearance of the countryside deteriorates; the demand for public services increases--particularly for schools and school buses--raising taxes disproportionately, especially for incumbent rural populations; and the sense of community is lost to a visually repetitive, unfocussed, low-density urban landscape.

These effects are most serious when exurban development along townships has become so continuous that ribbon development results. This situation occurs in several parts of the study area, particularly in Essex County.

3. Strip Development

Strip or ribbon development affects many areas of Southwestern Ontario. Nearly all roads in Sandwich West Township and many in Anderdon Township are lined with dense ribbon development, as is the shoreline road along Lake St. Clair between Windsor and Belle River. So seriously has ribbon development along Highway 3 from Windsor to Leamington hindered traffic that a new highway is required (part of which has already been constructed). Intensive ribbon development stretches from Leamington to Colchester along the Lake Erie shoreline and is advancing along nearly all roads leading inland.

The Sarnia-Brights Cove route is densely developed and blocks public access to Lake Huron. Here, too, development is advancing along roads leading inland. Large industrial estates constitute the intermittent ribbon development between Sarnia and Port Lambton. On the brighter side, in Moore Township, a strong official plan has generally prevented ribbon development, while the St. Clair Parks commission has maintained public access to the shoreline of the St. Clair River.

Other areas of ribbon development include Highway 40 between Wallaceburg and Port Lambton, the Chatham Township side of Highway 40 from Wallaceburg to the City of Chatham and from

Chatham to Charing Cross; and westward along both banks of the Thames River from Chatham to Prairie Siding. Intermittent strip development of a less serious nature occurs on roads radiating from London, on roads between Woodstock and Ingersoll, and in Sarawak Township near Owen Sound.

4. Cottages (Map #5)

The summer cottage has traditionaly served as a retreat from urban living. Yet, ironically, cottage country is now resembling the urban environment more and more, in both form and function, because many cottages are being converted to year-round use. The reasons for cottage conversions include some combination of the following: the desire to live in a non-urban environment with recreational amenities; the need for retirement homes; a demand for cheap housing; the housing shortage; a shortage of rural residential lots; and the demand for housing in areas where limited employment is introduced for a limited time (e.g., Douglas Point). The phenomenon is more common within commuting range of major urban centres, although it is not confined to such areas.

Many problems arise in connection with cottage conversions: the need for year-round road service adds significantly to municipal expenditure; additional police and fire protection are required; and school busing is required for the few children living in cottage areas, which usually have narrow and awkward roads and are at some distance from other concentrations of school children. Such conversions also result in a shortage of cottages, with resulting pressure on shorelines for more cottages. Also, the shortage of cottages raises cottage prices beyond the ability of more people to pay, thus creating additional pressures for recreational facilities along public shorelines. But the additional pressure meets additional resistance: where cottages become permanent homes, shorelines are more jealously guarded, public acquisition costs rise, and the creation of public facilities for "rowdy" day-use visitors is more strongly opposed. Nor is the problem confined to older cottage areas. New cottages and chalets are now being constructed for winter living and thus year-round use. All cottage subdivisions and concentrations represent areas of potential exurban growth.

SOUTHWESTERN ONTARIO STUDY AREA

PATTERN OF COTTAGE LOCATION

MAP 5

1 INCH = 800 INTERMITTENT HYDRO USERS

1971 1961

scale in miles

20 10 0 10 20

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According to Ontario Hydro data on "intermittent users" in 1971, nearly 25% of the existing cottages in Southwestern Ontario were located on the Bruce Peninsula. These cottages were concentrated in the Sauble Beach area and in the many bays of the peninsula. A further 33% of the study area's cottages lined the Lake Huron Shoreline from Southampton to Sarnia, with particular concentrations near Grand Bend, Kincardine, and Port Elgin. Relatively few cottages were recorded along the swampy shores of the St. Clair River and Lake St. Clair in Kent and Lambton counties. In Essex County, however, some 15% of the study area's cottages were heavily concentrated along Lake Erie between Amherstburg and Leamington and on the Lake St. Clair shoreline; but there was little development on the unstable and swampy Lake Erie shoreline east of Point Pelee. In fact, less than 6% of the study area's cottages were on the Lake Erie shorelines of Kent and Elgin counties, and nearly all of these were clustered in developments near Erieau.

Cottages and chalets in the Beaver Valley area of Collingwood and Artemesia Townships totalled some 10% of Southwestern Ontario's "intermittent users." A further 8% were scattered around the numerous small lakes in other areas of Grey County and along the rocky Georgian Bay shoreline.

Estimates of cottage conversion rates were based upon net declines in the number of intermittent Hydro users; a decline was assumed to represent cottages now occupied year-round. Generally, this means of estimation is accurate only in areas where new cottage developments are few or non-existent: where new cottages are being built, the net change in data includes any increase in the number of intermittent users, and the resulting estimate of conversions will be low.

In Essex County, the number of intermittent users decreased by more than 800 between 1961 and 1971, reflecting conversions along the Lake Erie shoreline between Amherstburg and Leamington and along the Lake St. Clair shore. Only a few cottages along the Detroit River were converted.

Since Essex County still reports a high density of intermittent users, the potential for still further exurban spread in the form of cottage conversion is high.

The number of intermittent users in Sarnia and Moore Townships decreased, too, but to a smaller degree than in Essex County. And although some cottages along the Lake Huron shoreline between Sarnia and Grand Bend have been converted, the construction of new cottages has resulted in a net increase in intermittent users for that area.

To determine the rate at which new cottages are being built, data on cottage subdivision proposals were combined with Hydro's "intermittent user" data. These data are not to be confused with the data on "rural" subdivisions used earlier in the chapter, as "rural" subdivisions do not include "seasonal" or cottage subdivisions.[3]

The ratio of approvals to applications for cottage subdivisions has been lower in the Bruce Peninsula than in the rest of southern Ontario; nevertheless, the peninsula has been under considerable pressure for new cottage subdivisions. Although only 7% of Southwestern Ontario's approved cottage subdivision lots were located in the six townships of the peninsula, more than 25% of all proposed cottage subdivison lots were located there.

The number of approved subdivisions increased significantly in the area centred on the Beaver Valley and Blue Mountain, where in recent years ski chalet subdivisions have become heavily concentrated. The Hydro data show major increases in "intermittent" users in both Collingwood and Artemesia Townships between 1961 and 1971. In fact, Collingwood Township alone recorded 12% of Southwestern Ontario's approved non-urban subdivision lots, both rural and cottage.

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[3]There was, however, one area where the two categories overlapped: chalet subdivisions proposed for northern Grey County were often submitted under either heading. Thus, for that section of the study area, adjustments were made to include the relevant "rural" subdivisions.

Map #5 illustrates the increased growth in the number of cottages and chalets between 1961 and 1971. The most marked increases occurred in the Beaver Valley townships of Collingwood and Artemesia and at certain points along the Lake Huron shoreline: Sauble Beach, Clark Point, and Grand Bend. In fact, growth along the entire Lake Huron shoreline from Grand Bend northward is clearly illustrated.

5. Mobile-Home Parks (Map #6)

As housing costs rise, some low-income families can no longer afford the traditional single-family residence and must look for some other form of accommodation. The mobile home is one such form. Relatively inexpensive units on land rented from the owner put this type of dwelling within the purchasing range of lower-income families. There are, however, potential planning problems associated with mobile-home parks. Despite the fact that these parks are a form of urban development, often on a large scale, they are not subject to provincial subdivision approval, as there is technically no subdivision of the original parcel. The province's UDIRA policy (Urban Development in Rural Areas) allowed small-lot subdivisions only near cities which could supply them with the necessary services; however, mobile home parks, which technically are not subdivided, could contravene the UDIRA policy by locating in rural areas. In addition, local municipalities cannot exercise effective control without specific by-laws. (Many municipalities have written policies concerning mobile-home parks into their Official Plans, but these have no legal status without supporting by-laws.)

This is not to say that existing mobile-home parks are in fact contributing to undesirable development, but the potential is there. As Map #6 shows, most parks, particularly those developed since 1961, are located in or very close to urban areas. Most of the larger developments are in Essex County. Smaller parks are located near Chatham, Sarnia, and Goderich. Scattered throughout the London-Woodstock-Stratford urbanizing area are several "pre-1961" parks,

SOUTHWESTERN ONTARIO STUDY AREA

MAP 6

MOBILE HOME PARKS

NUMBER OF HOME PARK SPACES

PRE 1961 HOME PARKS

1961 — 1971 HOME PARKS

scale in miles

20 10 0 10 20

OWEN SOUND

GODERICH

STRATFORD

WOODSTOCK

SARNIA

LONDON

ST. THOMAS

CHATHAM

WINDSOR

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with a smaller number of newer parks. Some mobile-home parks have recently sprung up in Bruce and Saugeen Townships in response to housing needs created by the Bruce Nuclear Power Station. Other smaller parks are scattered through Huron County and near Owen Sound.

6. Farm Home Conversion

Farm homes are being converted to exurban residences in significant numbers near the study area's major urban areas. These conversions will be discussed in more detail in the next chapter, which deals with the effects of exurban spread upon the agricultural sector.

7. Summary

In summary then, the exurban spread across the countryside of Southwestern Ontario occurs in five major forms: subdivisions, severances, cottage conversions, mobile-home parks, and farm home conversions. Whereas rural subdivisions are located near the major urban areas, severances are more dispersed, both across the region and locally on the landscape. This dispersion has in some areas assumed the form of residential strip development, which is becoming increasingly pronounced, particularly in Essex County.

Cottage conversion as another form of exurban spread has also been most pronounced in Essex County, with the potential for considerably more conversion there. Cottages are also being converted, though to a lesser extent, near Sarnia. The Lake Huron shoreline and Beaver Valley are under heavy pressure for new seasonal residences--although cottages in these areas, far from the larger urban centres, are much less likely to be converted to urban uses.

Although mobile-home parks can potentially contribute to the problems of urban sprawl, the mobile-home parks in Southwestern Ontario so far do not compare with the massive mobile-home developments in parts of the United States. The problem is small in scale and localized, predominantly in Essex County.

Geographically, Essex County has been affected more than other parts of Southwestern Ontario by the many forms of exurban spread. In the study area's other major urban areas, exurban spread has been less pronounced.

V. EFFECT ON RURAL RESOURCES

A. AGRICULTURAL RESOURCES

The opening chapter listed several ways in which exurban growth into rural areas influences the agricultural sector. These include:

--Loss of farmland

--Conversion of farms to hobby farms

--Increase in land speculation

--Growth of amenity agriculture

--Increase in land values

--Spread of weeds from vacant lots

--Conflicts with exurban residents over intensive farm operations

--Increase in taxes.

While a few of the effects listed coincide with categories in the Statistics Canada Census of Agriculture and are thus well documented, information on others must be inferred from such data as are available. For instance, the conversion of farms to hobby farms was measured by the increase in "farmers" reporting off-farm work for 229 days per year or more, effectively leaving only weekends for "farming." The amount of land speculation was inferred from two types of data: the increased number of 10-acre farms, which suggests preliminary subdivision by speculators prior to urban or exurban development, and the increased amount of rented farmland, as speculators rent back the land to farmers while awaiting development. Data pertaining to vacant lots and the tax base were not conveniently available. There are no practical data relating to conflicts between farmers and non-farm residents, but it seems reasonable to assume that, as non-farm densities increase, so does the potential for conflict.

A limitation on the available data is that the township represents its smallest unit. Yet a township is often so large that activities in one portion of it, at some distance from the urban portion, may result in

data for the township which conceal the urban influences at work. The major sources for this study's data on rented farmland, weekend farming, etc. (see below) include Statistics Canada and the Ontario Ministry of Agriculture and Food.

Southwestern Ontario is Ontario's most valuable agricultural area. Its growing season, up to 155 days a year and more, is the longest in the province, and it has more prime agricultural soil in relation to its total area than any other planning region in Ontario. Agricultural conditions in Grey and Bruce counties are more marginal: the land is not so good for farming, and the growing season is shorter, at only about 125 days/year. The growing seasons of Kent, Essex, and Lambton, on the other hand, exceed 155 days/year. The rest of Southwestern Ontario has generally good soils, including special-crop soils, and a climate which permits a good variety of crops to be grown. Agricultural specialization includes fruit and vegetable growing in the extreme southwest; tobacco along the Lake Erie shoreline through eastern Kent, Elgin, and parts of Oxford; beef in northern Huron and Bruce counties; and apples along the Georgian Bay shoreline of Grey County.

1. Loss of Farmland

Between 1961 and 1971 the study area lost 350,000 acres of census farmland (i.e., land defined as "farmland" in the census; see Table 5), primarily in Grey and Bruce counties. Perth, Elgin, and Huron lost very little farmland, while Kent County in fact gained some. Modest losses occurred in Lambton, Middlesex, and Oxford, while Essex County lost proportionately almost as much as Bruce.

A number of factors contribute to these losses. Although exurban spread is one of them, others include: marginal physical conditions, distance from markets, and uneconomical size of parcels.

Farmland losses due to urban development need not be excessive. In fact, one study (ARDA Report #7 (21)) has shown that in southern Ontario only 2-4% of all Class 1 and Class 2 farmland need be consumed by urban growth between 1971 and 2001. Although townships adjoining growing urban centres will lose some land to urban growth, unnecessary

TABLE 5

CHANGE IN AREA OF CENSUS FARMS

County	Area of Farmland 1961 (acres)	Area of Farmland 1971 (acres)	Change (acres)	Percent Change	Loss by County as a percent of total
Bruce	746,329	683,736	- 62,593	- 8.4	18.0
Elgin	402,896	394,099	- 8,797	- 2.2	2.5
Essex	397,962	353,203	- 26,759	- 7.0	7.7
Grey	899,673	760,193	-139,480	-15.5	40.0
Huron	765,135	742,965	- 22,170	- 2.9	6.4
Kent	557,133	559,811	+ 2,678[a]	+ 0.5[a]	a
Lambton	600,850	574,401	- 26,449	- 4.4	7.6
Middlesex	696,040	662,092	- 33,948	- 4.9	9.7
Oxford	449,321	428,976	- 20,345	- 4.5	5.8
Perth	511,303	500,382	- 10,921	- 2.1	3.1
Total	6,008,642	5,659,858	-348,784	- 5.8	100.0

[a]Increase in farmland

Source: Statistics Canada, Census of Agriculture, 1961, 1971.

losses due to inefficient urban sprawl or exurban development can be avoided. The following technique provides a rough indicator of the extent of excessive farmland losses (see Fig. 1 and Map 7).

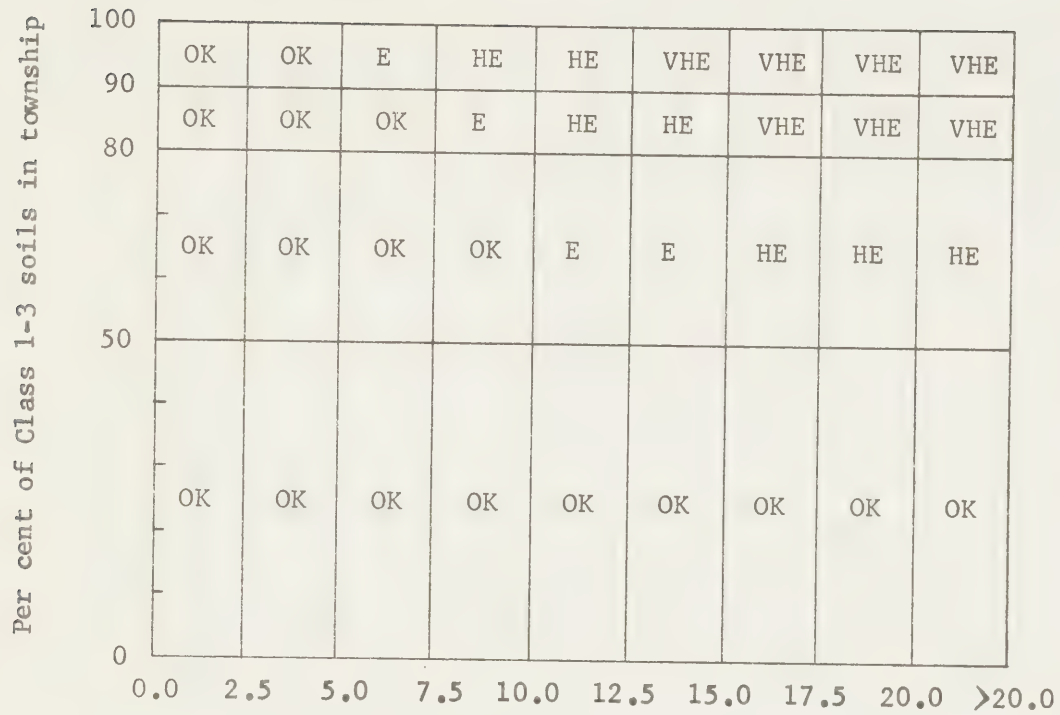
In each township, the proportion of that township's Class 1-3 land (as recorded in the Canada Land Inventory) was compared with the loss of farmland during the period from 1961 to 1971. Townships with good soil that lost a considerable amount of farmland were examined more closely for the factors responsible, particularly exurban growth.

The analysis shows that most of the townships with a high proportion of Class 1-3 soils lost little farmland during the decade. The few that lost a great deal ("very high excessive") were close to urban areas: the townships of Sandwich West, Sandwich South, and Anderdon, near Windsor; Lobo, near London; and Blandford, near Woodstock. The townships losing "high excessive" farmland--less than the "very high excessive" classification, but still too high a loss by far of top farmland--were located, not only near cities, but also in the rural areas which had a good deal of non-farm growth. Such townships clustered in an area extending from somewhat west of London to somewhat east of Woodstock; near Sarnia; near Owen Sound and in the Southampton-Port Elgin area (related probably to the Bruce Nuclear Power Development); in the Beaver Valley-Blue Mountain Area; and near Windsor. A few predominantly rural townships appeared in this category. Townships recording "excessive" losses displayed a similar tendency to group around the London-Woodstock axis, Windsor, Chatham, Beaver Valley, and the Bruce Nuclear Power Station. Again, a small number of "rural" townships appeared in this category.

Conversely, a significant number of townships adjacent to large urban areas and/or experiencing significant rural non-farm growth did not appear to lose significant amounts of farmland. Some, in fact, gained farmland.

The reasons for excessive losses in some near-urban townships and not in others may be attributed to a variety of factors: transportation routes, large speculative holdings, or local planning practices (or lack of them). Speculation is considered later in this chapter, and local planning in Chapter VI.

FIG. 1. DEFINITIONS USED IN MAP 7



Key: VHE Very High Excessive loss

HE High Excessive loss

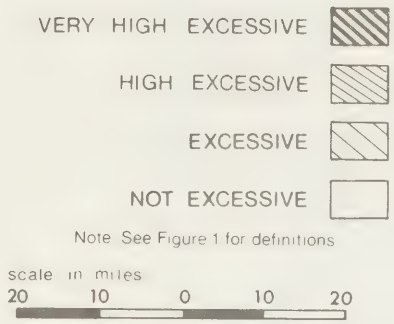
E Excessive loss

OK Reasonable loss

MAP 7

SOUTHWESTERN ONTARIO STUDY AREA

EXCESSIVE FARMLAND LOSSES IN RELATION TO SOIL CAPABILITY



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2. Farm Conversions

The Ministry of Agriculture and Food provides a special printout showing the amount of off-farm work by township for 1971. The category of farmers reporting more than 229 days of off-farm work per year was the one of most concern, since it can be inferred that these people have full-time jobs off the farm, and farming represents only a hobby or a weekend income supplement.

Map #8 illustrates the distribution of "farmers" reporting more than 299 days of off-farm work.

The relationship of weekend farming to the larger urban centres is clearly evident around the urban centres of Sarnia, Windsor, London, and Owen Sound. The major concern here is farmland which is not fully used. For most forms of farming, weekend farming does not fully use the available physical resources. The patterns around Windsor and Sarnia are of special concern because the soils near these cities are good, and the growing season long.

3. Speculation

One characteristic of land speculation is the division of land into ten-acre or one-acre parcels. Another is absentee land-holding, as large tracts are held by speculators and rented back to farmers. Statistics Canada classifies farms by size in each township--the data include a category for farms ten acres in size or smaller--and notes whether the person living on each farm is an operator-tenant, part-tenant,[1] or resident owner. For Southwestern Ontario, these data give the following information.

a. Census farms 10 acres and less in size

By and large the majority of the study area's ten-acre farms were within or adjacent to townships experiencing major increases in rural non-farm populations. Significant increases in the number of 10-acre farms for the 1961-1971 census decade were recorded in

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[1] A part-tenant is a farmer who owns only part of the land he farms and rents or leases the remainder.

SOUTHWESTERN ONTARIO STUDY AREA

MAP 8

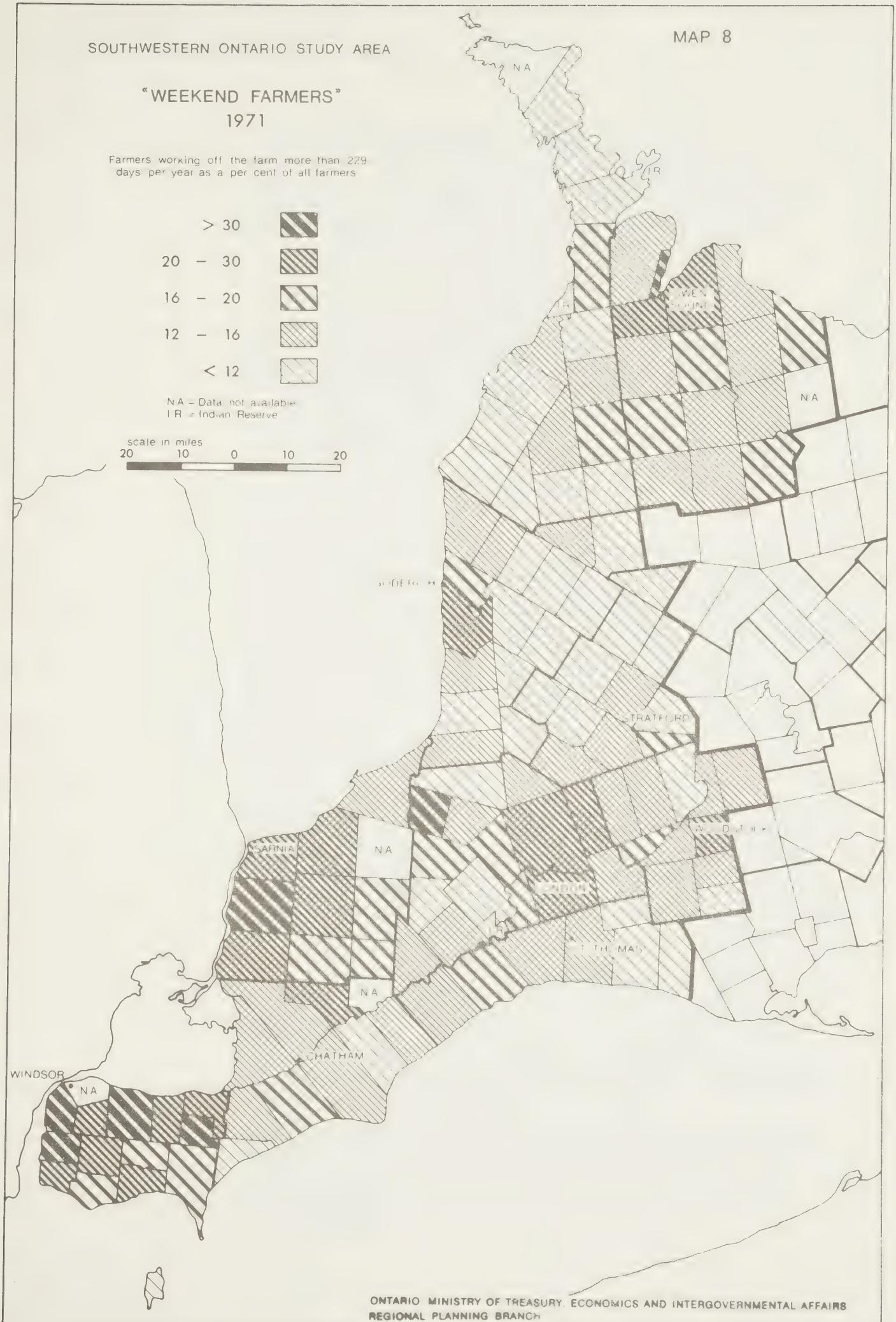
"WEEKEND FARMERS"
1971

Farmers working off the farm more than 229 days per year as a per cent of all farmers

> 30	
20 – 30	
16 – 20	
12 – 16	
< 12	

N.A. – Data not available
I.R. – Indian Reserve

scale in miles
20 10 0 10 20



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these same townships, but not in all townships near to cities. In some of these townships, the number of 10-acre farms also declined significantly, probably indicating either annexation by the urban municipality or the conversion of some 10-acre parcels from farming to urban uses.

Anomalies were numerous. Some townships far from urban centres had large or increasing numbers of 10-acre farms, while some townships near to cities had few. Agricultural practices may account for some anomalies: for example, the orchard industry in the Thornbury area, the greenhouse industry in the Leamington area, and drainage schemes in northern Kent County. And some new 10-acre farms may represent sales to urban weekend farmers and not to speculators.

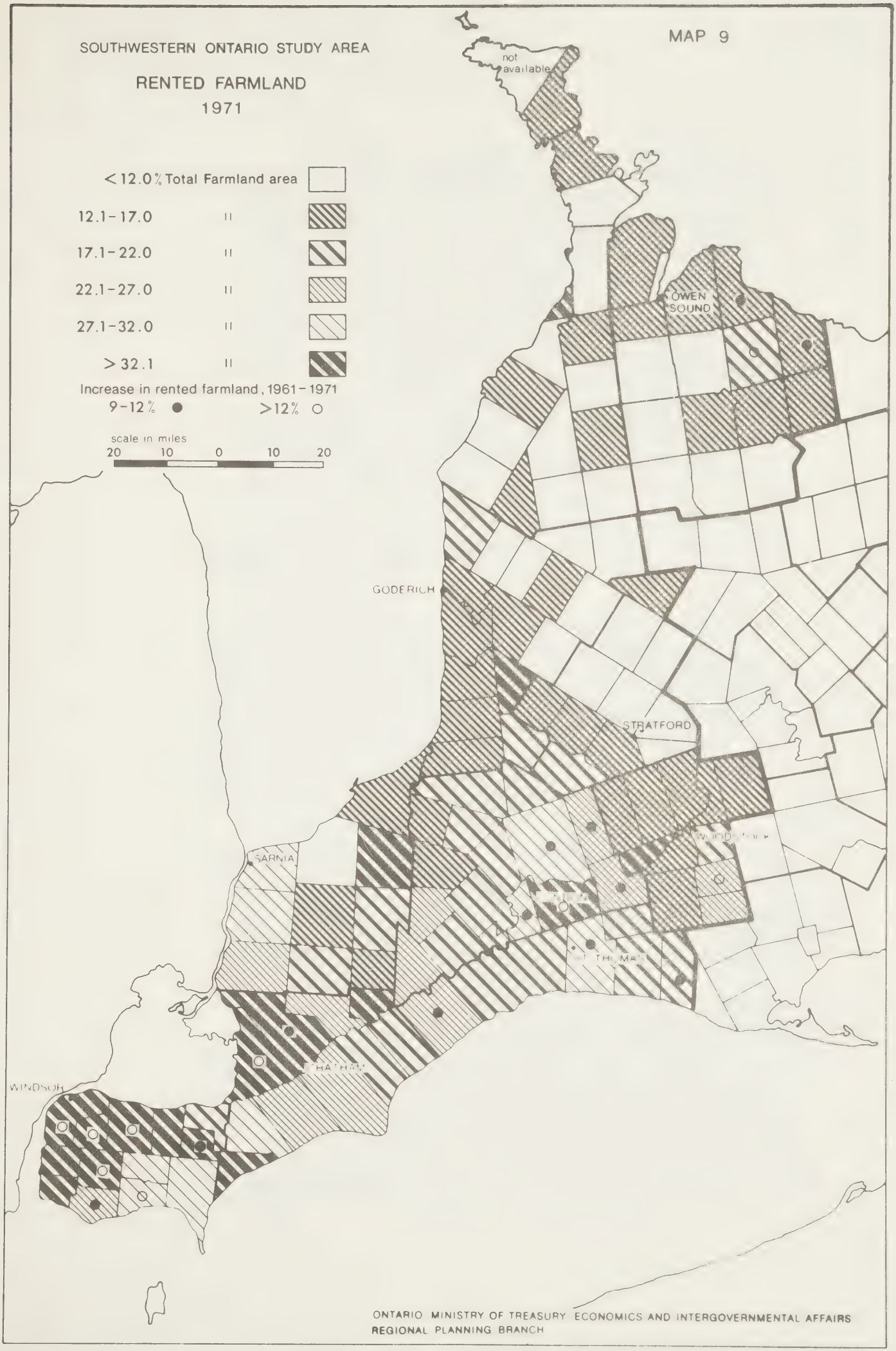
The concern with such farmland subdivision is that, except for such specialized agriculture as greenhouse farming, operations of this size are not economical. While farmland subdivision may be a sound practice in locations where urbanization is imminent, where urbanization is not immediately expected it represents long-term speculation.

b. Rented Land (Map #9)

A second indicator of speculation is rented farmland. In the Niagara Escarpment area of northeastern Grey County, although the proportion of rented land was still relatively low, between 1961 and 1971 there was a 50% increase in the rented land area. Here the recreation potential attracts city dwellers and speculators alike.

Data on rented farmland may also indicate the degree of ownership by exurbanites who, seeking country living, buy a farm, live in the farmhouse, and rent back the land. These owners usually have little interest in speculation. Both forms of non-farm ownership, however, indicate exurban spread.

Map #9 shows a heavy proportion of rented land in Essex County, with much lower proportions near Sarnia and London. It is in Essex County that the increase in rented land is greatest.


SOUTHWESTERN ONTARIO STUDY AREA
RENTED FARMLAND
1971
MAP 9
not available
< 12.0 % Total Farmland area
12.1 - 17.0
17.1 - 22.0
22.1 - 27.0
27.1 - 32.0
> 32.1
Increase in rented farmland, 1961 - 1971
9 - 12 %
> 12 %
scale in miles
20 10 0 10 20
OWEN SOUND
GODERICH
STRATFORD
SARNIA
WINDSOR
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Whether owned by speculator or by exurbanite, the rented land represents for the farmer land that will not be farmed indefinitely. This realization can lead to undesirable agricultural practices. For example, crop rotation may be abandoned in favour of growing successive high-value crops which drain the soil of nutrient value. Physical structures may not be kept up. Where urban growth is imminent, it may be desirable to rent back the land to farmers in order to keep it in agriculture until the last moment. Otherwise, a high proportion of rented farmland is not conducive to an efficient or stable agricultural economy. In this regard, Essex County represents an area of serious concern.

4. Amenity Agriculture (Distribution of Horses and Ponies: Map #10)

Amenity agriculture represents non-food agriculture geared to the urban market. It includes sod-farming, plant nurseries, and the raising of animals not intended for food, such as pets or horses. The only form of amenity agriculture for which data are readily available on a township basis is the number of horses and ponies. These are accordingly the data reported here.

A recent study (1) has shown that the recent increases in Ontario's horse population that followed the decline due to mechanization reflect the increasing popularity of such recreational activities as hunting, trail riding, and commercial riding. It concludes that the horse industry in Ontario in 1971 is primarily urban-based and recreation-oriented.

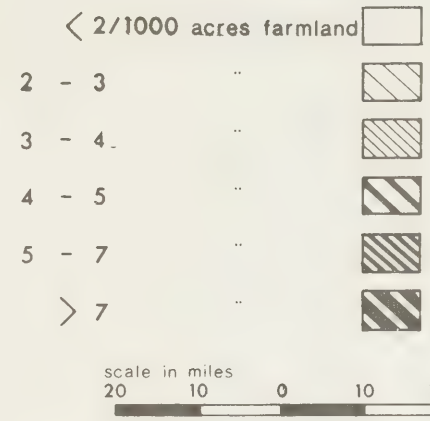
A glance at Map #10 reveals a small area with a highly concentrated horse population near Windsor, another near Sarnia, and a rather extensive area around London. A good many horses are concentrated north of Stratford, where the conservative Amish religious sect, which prefers horses to tractors and autos, constitutes 50% of the rural population. An area in Grey County may be due to exurbanite ownership in the scenic areas unsuited to most kinds of agriculture.

SOUTHWESTERN ONTARIO STUDY AREA

MAP 10

DENSITY OF HORSES AND PONIES

1971



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The greatest recent increases in horse populations have occurred near Windsor and London and in Artemesia Township.

Horse-raising and other forms of amenity agriculture represent farmland which is not producing food. They also represent the deflection of feed-grain and fertilizer to non-food uses. Although the practice of amenity agriculture does not physically close options on food-related agriculture, the greater profitability of amenity agriculture may cause land prices to rise beyond the reach of food farmers. Therefore the extensive pattern of amenity agriculture around the London area gives cause for concern, especially considering the good soil in this area and the large and increasing market for produce.

5. Farmland Values

The Ministry of Agriculture and Food has compiled a list of farmland values (land only) by township for farm transactions between 1969 and 1971, while Statistics Canada provides a record by township of the value of farm land with buildings. The advantage of the latter is that it includes all census farms. The advantage of the former is that it does not distort the land value by including the value of buildings. (The value of the buildings may reflect the nature of the operation, rather than urban influence--the buildings of a dairy farm are more elaborate and costly than those of a feedlot with a similar number of cattle, for instance.)

The data supplied by the Ministry of Agriculture and Food (land only; Map #11) for 1971 showed the highest land values--more than $700 per acre--near Windsor, Sarnia, and Leamington. (High values near Leamington reflect the intensive greenhouse industry.) Values were generally high in most of Essex and Kent and along an east-west axis from west of London to Woodstock. Values were moderately low in central and eastern Lambton and in western Middlesex. They became progressively lower towards the north, with slightly higher enclaves near Owen Sound and in Collingwood Township.

SOUTHWESTERN ONTARIO STUDY AREA

MAP 11

AVERAGE VALUES OF LAND TRANSACTIONS

1971

< 200 $/acre

200 < 250 $/acre

250 < 350 $/acre

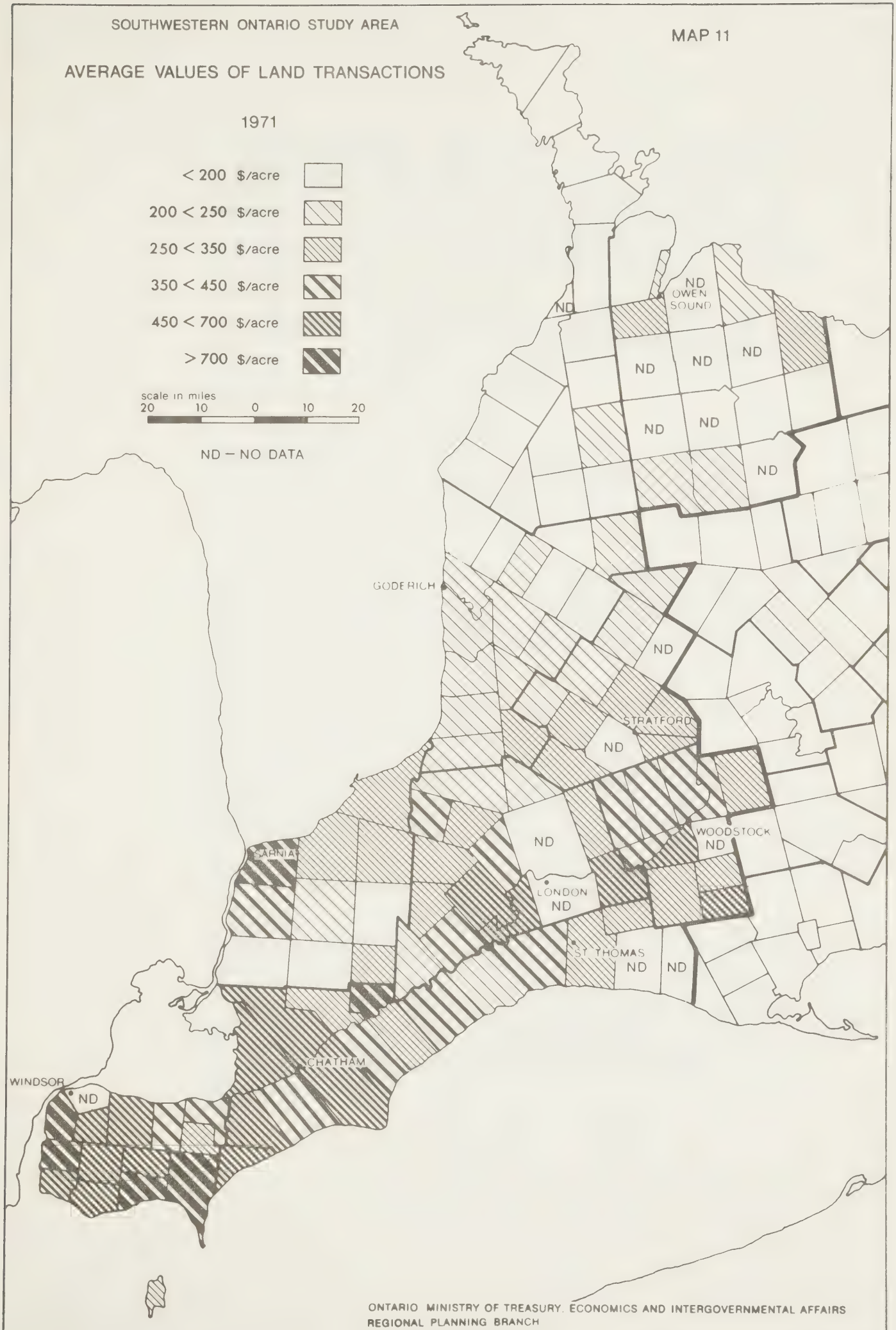
350 < 450 $/acre

450 < 700 $/acre

> 700 $/acre

scale in miles
20 10 0 10 20

ND – NO DATA



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Near Windsor, only farms in the Township of Sandwich West and Anderdon reached the highest values of over $700 per acre. Farms in the ramainder of Essex and in western Kent averaged slightly lower values. Values of $400-500 per acre appeared in the eastern and northern portions of Kent.

A trend to high values emerged along the east-west axis in the London area, while moderately high values appeared northeast and northwest of London. Values in the remainder of Middlesex County were noticeably lower.

High values around Sarnia were confined to the Township of Sarnia; lower values appeared in the Lake Huron shoreline townships of Plympton and Bosanquet, and in Moore Township. Most of the remaining townships in Lambton County recorded lower values.

Map #11 also shows sharply lower values in the northern counties of the study area. Collingwood Township again reflects the higher land values corresponding to recreation potential and specialized agriculture.

Land value is not a perfect indicator of exurban spread because high prices can reflect a variety of influences, such as valuable intensive operations with specialized crops, good soil and climate, and the proximity of large markets, as well as the exurban pressures of speculation and the demands for country homes or hobby farms. However, high-priced farmland whose higher value is due to the pressures of urban or exurban development is likely to pass out of agriculture, thus putting more farmland out of production than is actually needed for urban or exurban development. In areas more distant from main urban centres, farmers react to exurban pressures in various ways; by winding down their operations or abandoning them completely; by selling to developers or exurbanites; or by changing the nature of their operations to a more lucrative form, possibly non-food amenity agriculture.

6. Effects on Farm Enlargement

Exurban growth also makes it very difficult for a farmer to enlarge his operation. The difficulties include prohibitively high land values, fragmeneted parcels due to sales to exurbanites, high taxes, low returns on investment, and the expectation that the area will not remain agricultural in the long term. (The latter is a particularly strong deterrent in areas where inadequate local planning permits urban and exurban development to occur indiscriminately.)

Map #12 represents the relative change in the number of farms over 180 acres. The source of these data was the Statistics Canada Census of Agriculture 1961 and 1971 and the underlying assumptions were the following: since "agri-business" is not yet entering the area, a high rate of increase in the number of these large farms reflects healthy opportunities for farm expansion; a low rate of increase represents some impediments to farm enlargement; and a decrease in the number of farms over 180 acres reflects serious problems facing the economics of farm enlargement.

There was an over-all reduction in farm enlargement throughout northern Bruce and most of Grey, and pockets of decline in large farms around London. Although the number of 180-acre farms in the Windsor-Amherstburg areas of Essex did not decline, such farms increased at a noticeably slower rate in this area than in the rest of the county. Indeed, farms in this area are generally small, averaging less than 120 acres. Similarly, the rates of enlargement were low near Sarnia and to the northwest and south of London.

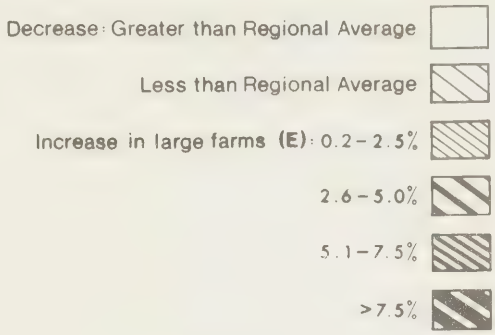
The extent to which this pattern reflects urban pressure is not clear, but exurban spread is probably at least partly responsible for the declines west and north of London and near Sarnia. Adverse physical conditions and opportunities for off-farm employment, on the other hand, probably account for much of the decline in Grey and portions of Bruce.

SOUTHWESTERN ONTARIO STUDY AREA

MAP 12

FARM ENLARGEMENT

RELATIVE INCREASE OF FARMS > 180 ACRES



$$E = \frac{(S^1 - S^2)}{t} \times 100$$

E = township enlargement

S^1 = No. of farms > 180 Acres, 1971

S^2 = No. of farms > 180 Acres, 1961

t = No. of farms in township

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7. Conflicting Life Styles

In areas experiencing influxes of exurbanites, conflict is likely between the farmer with an intensive operation and the exurbanite seeking a clean, quiet rural environment. "Fertilizers and insecticides find their way into the house or swimming pool, and reduce the number of birds; harrowing raises dust which covers the house and grounds; fallow soil or young crops may mean the exurbanites pond becomes periodically murky and silts up rapidly; the groundhogs which the exurbanite enjoys watching are shot by the local farmer concerned with the safety and longevity of his machinery; and the noise of the tractor shatters the peace and tranquility of the weekends and long summer evenings that the exurbanite lives for."[2]

Conversely, the farmer is plagued by weeds from lots owned by absentee land-owners or from lots which are larger than the lifestyle of the exurbanite requires. (Most exurbanites use only two acres or so, yet provincial subdivision regulations requiring a minimum lot severance of 10 or 25 acres mean that many exurbanites own lots larger than they need.) To make matters worse, the Ministry of Agriculture's Agricultural Code of Practice prohibits the farmer from building or enlarging farm structures within 2,000 feet of a non-farm residence, yet an exurbanite is permitted to build within 2,000 feet of a farm structure. Thus, if a man from the city builds his house within 2,000 feet of his farming neighbour's barn, the farmer cannot now expand the barn. If he needs more barn space, he must go to the expense of building a new barn elsewhere on his land.

As exurbanites become the greater portion of the rural population, farmers tend to lose their influence on local council decisions. In fact, in many rural municipalities, exurbanites have been elected to local councils in sufficient numbers to form a majority. As a result, council decisions relating to farm-non-farm conflicts go against the farmer, causing him to lose confidence in the long-term economic profitability of farming. With the influx of urban life styles and values, traditional rural life styles enjoyed by the farming community are often severely altered. The social and economic problems created by the infusion of large numbers of exurbanites are considerable.

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[2] Punter (15), p. 322

There is no way to measure the extent of such conflict statistically, but it is no less real for that. Areas experiencing large-scale exurban spread, particularly in the form of haphazard lot creations through severance, are most likely to be the scenes of such conflicts. Such areas include much of Essex County, particularly near Windsor; to a lesser extent the areas around London, Chatham, and Sarnia; and Collingwood and Artemesia townships.

B. RECREATION RESOURCES

Map #13 shows the major recreation resources of the study area; Map #3 (p.25), the main areas of cottage and chalet subdivisions.

1. The Niagara Escarpment

The Niagara Escarpment is more than a single recreation resource. It is an area with many such resources, including rare rock formations, ski hills, floral ecosystems, attractive waterfalls, and scenic topography. Exurban development *per se* is having little effect on the Grey-Bruce portion of the escarpment. However, recreation-oriented demands from more distant large urban centres are severely affecting some areas.

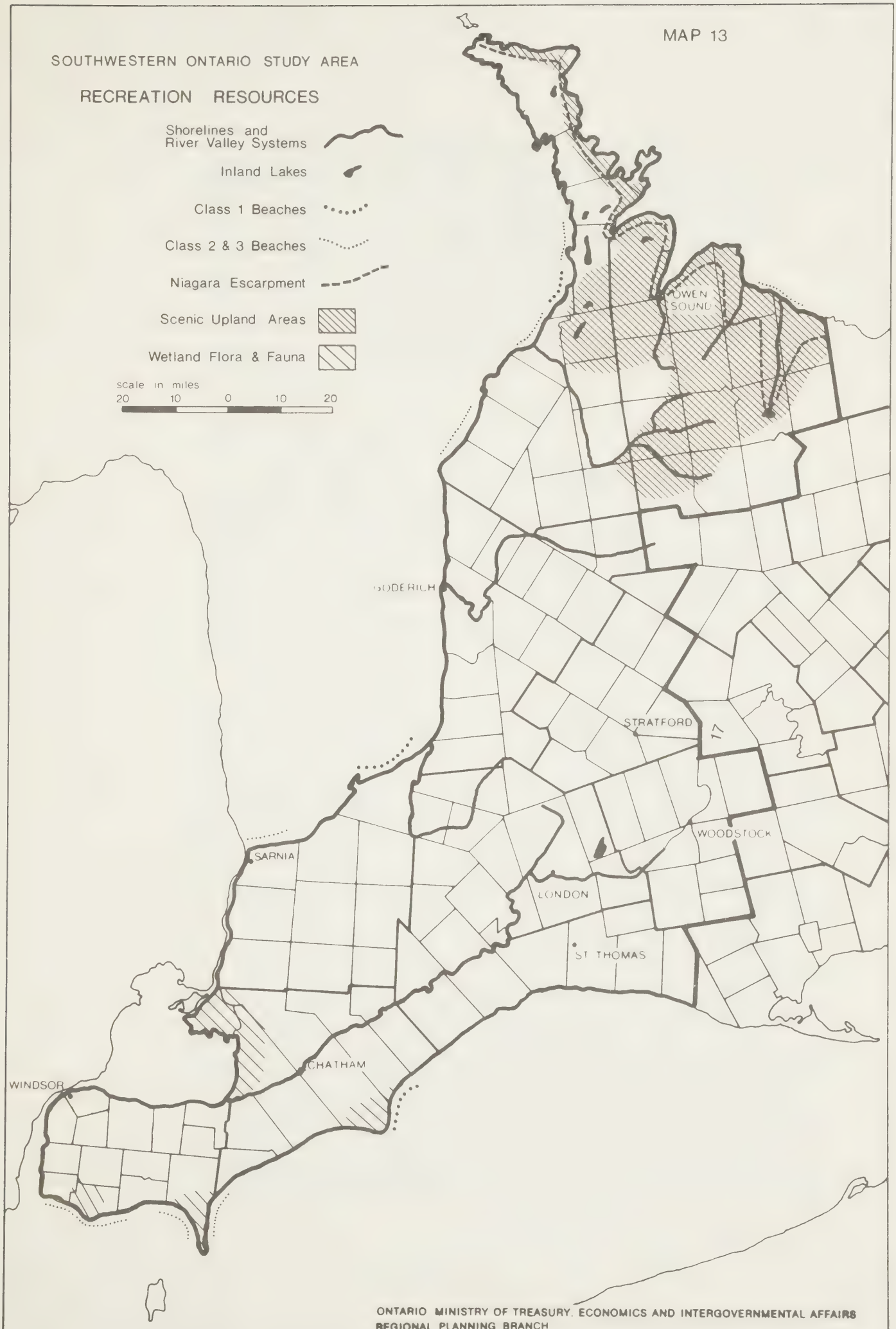
Because of the area's attractions, the demand for country homes and ski chalets has been high, and it is these two forms of development which have had the greatest effect on escarpment resources. Country homes are usually built on relatively large lots in scenic areas, often on the escarpment crest. This choice of sites often eliminates public access to these scenic areas: exurban land owners tend to be more trespass-conscious than the original rural residents. For this reason, many parts of the Bruce Trail have had to be re-routed from the more desirable crest route into public roads.

Chalet developments, on the other hand, particularly those created by plan of subdivision, tend to be highly concentrated. In some areas, such as the foot of the Blue Mountain and Georgian Peaks, this concentration of houses detracts from the scenic view of these hills from the flats below.

MAP 13

SOUTHWESTERN ONTARIO STUDY AREA

RECREATION RESOURCES



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If public acquisition of lands for recreation is included among the effects of development, then this effect, too, is being felt along the Niagara Escarpment. The Niagara Escarpment Act has restricted development in the escarpment area; the Ministry of Natural Resources is acquiring a large tract of escarpment land in the Bruce Peninsula; in fact, 9% of all lands which the various Conservation Authorities acquired in Southwestern Ontario between 1961 and 1971 were in the escarpment area.

2. Great Lakes Shorelines

The shoreline of the southwestern study area has considerable provincial significance. It is a long shoreline with a great variety of good recreation resources, including beaches, wildlife areas, floral ecosystems, unusual topography (e.g., sand dunes), and natural boating harbours. It is also the shoreline closest to the major urban areas of southwestern and south-central Ontario. Harm done to the shorelines is therefore important.

Some shoreline areas are being directly affected by both urban and exurban spread. These are areas near Windsor--the shorelines of Lake St. Clair, the Detroit River, and Lake Erie--where increasing numbers of summer cottages are becoming permanent homes. Although cottage conversion does not necessarily increase the density of shoreline housing development or decrease the length of public shoreline, it does pose additional pollution problems, as older waste-disposal systems start to be used continuously. Increased permanent use can also solidify homeowner opposition to increased public use of nearby beaches or shoreline parks. A similar problem of lesser magnitude is occurring on the Lake Huron shoreline near Sarnia. The St. Clair River shoreline in the same area is under the auspices of a parks commission. The finest beaches, however, are along the Lake Huron shoreline. Public use of these resources is impeded by private shoreline ownership by summer cottagers. In fact, the land use maps of the Regional Planning Branch show a virtually unbroken line of cottages from Grand Bend to Goderich, from Clark Point to Kincardine, and along Sauble Beach. Much beachland is thus already privately owned.

Although there are few beaches along the Bruce Peninsula, some cottages have caused pollution through inadequate waste disposal systems, and there has been pressure for additional cottage developments. Private ownership and increased construction would hinder public enjoyment of the rare floral ecosystems of the peninsula and could damage them irreparably.

3. River Valleys and Inland Lakes

River valleys are less popular than the Great Lakes shorelines because they can be used recreationally for little other than fishing or for boating and bathing near control dams. With some exceptions, urban development has therefore taken up little space along the river valleys. The exceptions include the proposed Komoka Park on the Thames River, where estate residential development[3] has been proposed for the suggested park site, and the lower Sauble River, where new cottage developments are being established in response to the congestion at the nearby Sauble Beach area.

Most of the small inland lakes in Grey and Bruce counties suffer from cottage congestion, pollution, and boating hazards. There is little public access to most of them (although in fact they would be useful for little other than very limited cottaging, some angling, and day-use activities). There has been some slight demand for cottage subdivisions on inland lakes in Grey and Bruce counties, but most of the subdivision applications have been officially rejected.

4. Scenic Topography

Hilly topography within Southwestern Ontario is essentially confined to the Niagara Escarpment and the kame moraines of Grey County. In recent years (about 1969-1973), Holland and Glenelg townships, which lie within the moraine system, have annually permitted a locally significant rate of severances. However, the number of severances is not great, and the moraines are not one of the province's major recreational resources, so that these severances are not of serious concern to the region or the province.

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[3] An "estate residential development" is a residential subdivision of two-acre lots.

C. AGGREGATE RESOURCES

Exurban spread is a direct threat to the future of the aggregate industry. Sand and gravel deposits provide excellent drainage for septic tank systems and often occur in conjunction with scenic topography. Such hills as kame moraines often attract exurbanites in search of attractive rural surroundings--and, since these hills are also marginal for most forms of agriculture, the economic incentive to sell is greater than that to farm. Once exurbanites have established a country home, they have little patience with the noise and dust associated with aggregate mining in the vicinity. Yet there are ever-increasing demands for aggregate for construction. The current movement of affluent urbanites from the city to rural estate residential lots has effectively frozen many areas rich in these materials.

Generally, Southwestern Ontario is not rich in sand and gravel deposits. Only in the kame moraines of Grey County are there significant concentrations (Map #14), chiefly in Glenelg Township, where more than 50% of the land is underlain by sand and gravel. As noted in the section describing recreation resources (Section B. 4. of this chapter), there is a demand for country homes in Glenelg Township.

In the southern portion of Southwestern Ontario, aggregates occur more in level outwash[4] deposits and in post-glacial beach deposits. Although level outwash topography does not match the appeal of the kame topography for exurbanites, drainage conditions are conducive to residential development.

Sand and gravel resources in the study area are nearly depleted, not because of exurban growth, but because of high demands from construction markets. This combination of decreasing access and increasing demand will create additional pressures on the valuable sand and gravel supplies of central Ontario, where exurban pressures have been heavy and widespread local zoning restrictions effectively lock up 90% of the potential supply.

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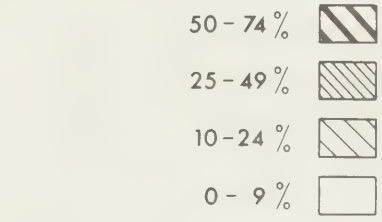
[4] "Outwash deposits" are sand and gravel deposited in front of a retreating glacier by water running off the glacier as it melts.

MAP 14

SOUTHWESTERN ONTARIO STUDY AREA

SAND AND GRAVEL RESOURCES

PER CENT LAND AREA UNDERLAIN BY SOILS CONTAINING SAND AND GRAVEL



Source: ARDA report no. 7, U of Guelph

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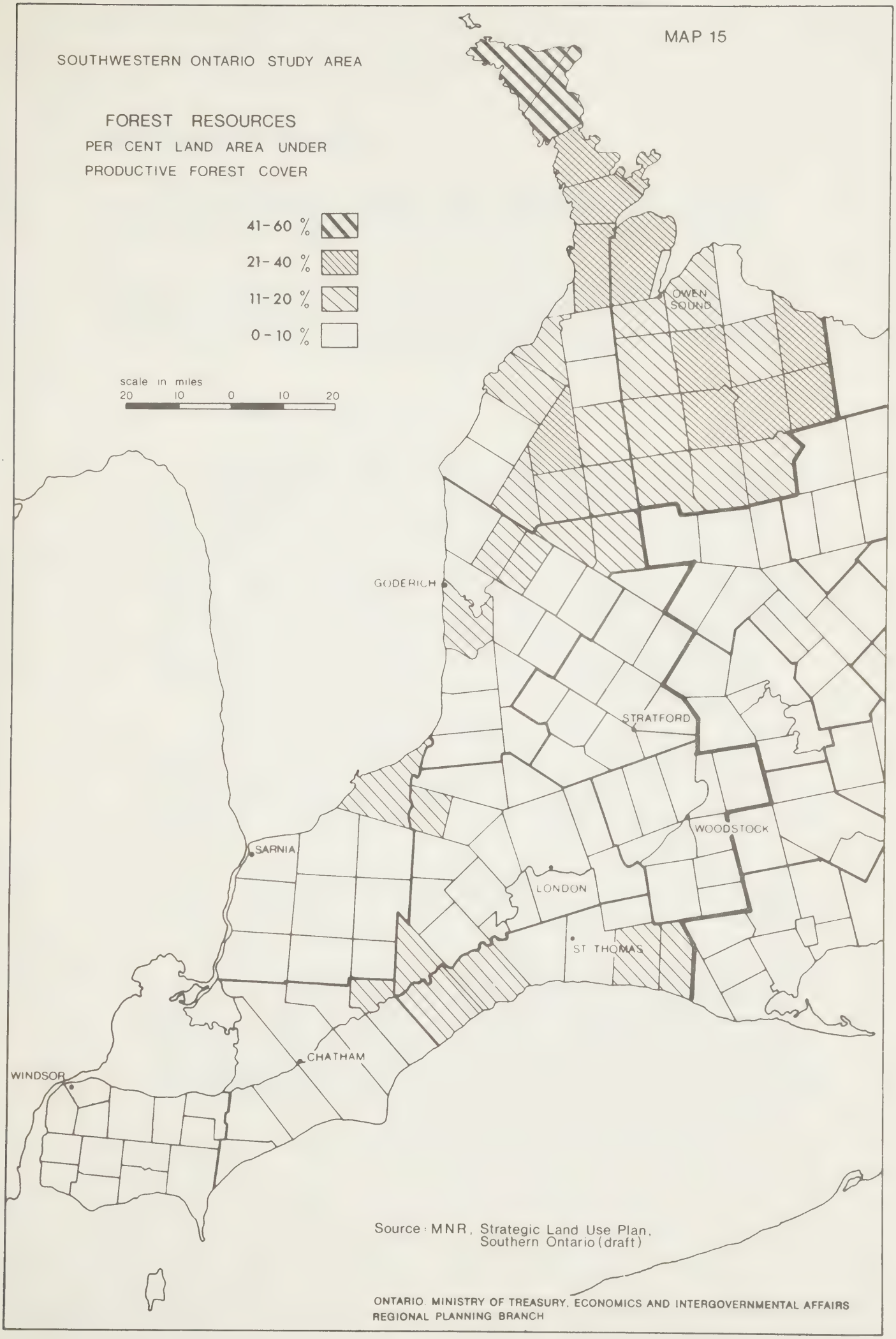
D. FOREST RESOURCES (Map #15)

The wood-using industries in Grey and Bruce counties are currently facing declines in both quantity and quality of local hardwoods, declines which could force their closure or removal, with serious repercussions for the many small towns dependent upon those industries for the bulk of their employment. While some woodlot operators must accept responsibility for using up the hardwood supply, some new exurban woodlot owners, for aesthetic reasons, may not cut hardwood at all. This practice not only further limits the hardwood supply for the wood-using industries, but also creates poor timber from lack of thinning.

The proportion of forested land is quite high in Grey County and parts of Bruce. It is these pleasant woodlots of Grey County that are attracting country homes. Although the effect of these houses is hard to measure statistically, it is evident that the future hardwood supply is in some danger.

MAP 15

SOUTHWESTERN ONTARIO STUDY AREA



Source: MNR, Strategic Land Use Plan, Southern Ontario (draft)

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VI. THE PLANNING FRAMEWORK

The preceding chapters have described the various effects of exurban spread upon rural resources, with particular reference to agriculture.

There are a number of planning concerns at the federal, provincial, and local levels. The following paragraphs review the ability of these three jurisdictions to cope with the problems of exurban spread.

A. THE FEDERAL LEVEL

The federal government enters the picture through the ARDA (Agricultural and Rural Development Agency) farm enlargement programs to assist farmers seriously intending to remain in farming to enlarge their operations. By 1973, the program had involved purchasing, leasing back, or reselling 574 farms in Bruce, Grey, and Huron counties--4% of the total for those counties. However, a price ceiling of $150 per acre limits what the program can do in areas where the land is more valuable; in the remainder of the study area where land values are higher, only three farms (all in Middlesex) were involved in the program.

Although assisted farm enlargement is one aim of the ARDA program, the program ignores the unique situations facing farmers in areas of exurban spread. In addition, the price ceiling confines the enlargement program to areas of lower-cost, marginal farmland.

Other federal projects include providing a community pasture in Bruce County; incentives to small local industries, including food processing industries; and research grants.

While these programs may have reduced some of the effects of exurban spread and perhaps slowed down the premature loss of farmland in the northern portions of the study area, exurban spread in the southern portion has continued to inflate land values, increase rentals, and promote off-farm work. As a result, in these areas, farm enlargement has slowed down or ceased altogether.

B. THE PROVINCIAL LEVEL

1. The Planning Act

The Planning Act represents the major legislative mechanism by which the provincial agencies, particularly the Ministry of Housing, can apply and enforce standards defining permissible forms of development throughout the province.

The act permits municipalities to plan comprehensively by establishing a planning board, to prepare an official plan with land use proposals for which the municipality can enact zoning by-laws, and to approve severances through a land division committee or a committee of adjustment. After an official plan is approved, subsequent subdivision proposals must conform to zoning by-laws. The act gives final authority for approving official plans and subdivision proposals to the Minister of Housing. In reviewing official plans, the Ministry of Housing applies its standards and policies for such forms of exurban development as severances, cottage subdivisions, cottage conversions, mobile-home parks, and estate residential developments.

Until recently, the over-all Ministry of Housing policy concerned with development in rural areas was the "UDIRA" policy, short for "Urban Development in Rural Areas." This policy, recently discontinued, was announced in 1966 by the then Minister of Municipal Affairs, J. W. Spooner. In his policy statement Mr. Spooner expressed concern about "poor urban development spreading along our highways ... mixed residential and other uses sprawling haphazardly across the countryside ... without order, at considerable distances from urban centres, [that they] lack adequate standards of servicing ... reduce the efficiency and safety of traffic arteries, ... impose an undue strain on municipal finances, and frequently mar the landscape." Describing the UDIRA policy, Mr. Spooner added that "year-round urban residential development should take place in municipalities that [can provide] necessary urban services" and be "properly integrated in an existing urban community."

a. Consent Policy

Severance-granting has not always reflected the UDIRA policy. Indeed, in some instances, virtual "subdivisions" have been created through severances. The Ministry of Housing has recently suggested a new severance guideline:

"Where a parcel of land has more than one dwelling in existence at the time of adoption of the plan, the severance of a parcel of land for such additional dwelling shall not be prevented," and: "as a general rule [the number of lots granted per year] should be related to the existing lots of record ... and should reflect the equivalent annual growth rate in the rural areas... ."[1]

In other words, rural severances should be permitted in the future at the same rate at which they have been made in the past. Yet, if the province's major rural resources are to be protected adequately from the problems associated with severances, it would be more appropriate if the rate of severance granting were geared to provincial resource priorities, rather than to a historical rate of severance-granting, which has in many cases either limited or completely closed options on major rural resources.

b. Estate Residential Policy

The Ministry of Housing policy restricts estate residential developments to land which has been out of agriculture for three years and requires that these developments be organized into coherent groupings to avoid scattered development.

There are, however, no provincial guidelines to define preferred locations for subdivisions in the context of over-all provincial development. Nor is there any way to assess tradeoffs with other rural resources, such as sand and gravel deposits, woodlands, or attractive upland scenery.

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[1] From an information form letter with attached list of standards: "Re: Consents Policy Rural Areas," from the Director, Plans Administration Branch, Ministry of Housing. (No date. In use 1974.)

The provincial policy concerning these developments is, however, currently undergoing revision.

c. Cottage Conversion Policy

The province feels that cottage conversion should be allowed in areas which already have both permanent and summer homes. Its present control over cottage conversion is limited to prescribing structural standards, local zoning amendments, and some servicing considerations. Thus, even though cottage conversions may be a problem in some areas, provincial policy permits more such conversions on the basis that some have occurred in the past. It would be desirable if the province would develop a cottage conversion policy concerned with the effects of septic pollution on beaches, the cost to municipalities of providing full services to areas originally developed to receive only partial services, and the effects on shoreline resources. In particular, the province could regulate massive conversions near urban centres, such as those taking place in Essex County.

d. Cottage Subdivision Policy

The Ministry of Housing generally encourages policies of the type found in the Huron County Official Plan, which ensures an "optimum length of unobstructed shoreline... for the public use"--a policy which encourages cluster cottage development rather than linear development. The Ministry of Housing cannot officially impose these standards. However, it can and does encourage their adoption during the course of official plan preparation and review.

The Ministry of Natural Resources' policy, which applies to cottage development on Crown Lands and cottage subdivision elsewhere, permits 64 cottages per mile of shoreline on Class 1 shoreline[2]--an average of 82 feet of water-front length per lot.

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[2]Class 1 shoreline offers no limitations to the development of recreational lodging: gently sloping shoreline, deep soil for sewage disposal, etc.

e. Mobile-Home Policy

"Mobile home parks are considered by the [Plans Administration] Branch to be another form of urban residential development . . . Often the scale of a park is quite comparable to a plan of subdivision . . . Additionally, mobile home parks offer permanent year-round residences in a fully equipped dwelling unit . . . It follows . . . that mobile home parks are an urban development, so that the location of those parks in the rural areas . . . must be considered in relation to established provincial UDIRA policy."[3]

Again, however, the province can only raise with the municipalities the question of whether this policy can be included in local official plans. Legally, the municipality governs the licensing of such parks under The Municipal Act, and The Municipal Act does not recognize mobile-home parks as a form of urban development. Rather, it continues to regard mobile homes as travel trailers: "any vehicle (used for living, sleeping or eating) so constructed that it is suitable for being attached to a motor vehicle for the purpose of being drawn or propelled by the motor vehicle . . . notwithstanding that such vehicle is jacked-up or that its running gear is removed."[4]

It would be desirable if provincial policies governing the pattern of urban development in rural areas were framed primarily to protect rural resources of major provincial concern. The policy could state the preferred uses for such resources and could also specify the limits within which local planning could develop policies for consents, rural subdivisions, cottage conversions, and mobile home parks. At present, the onus is upon the local jurisdiction to recognize the importance of major resources, and it is not surprising if provincial interests sometimes lose to local interests.

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[3]Extract from a letter of January 1974 from L. Spittal, Senior Planner, Official Plans Section, Plans Administration, Ministry of Housing to District Municipality of Muskoka.

[4]Municipal Act. 1974. Section 383, Subsection 15. (a).(ii).

2. The Planning and Development Act

The Planning and Development Act permits the Treasurer of Ontario to designate a "development area" and prepare a comprehensive plan for that area.

This legislation can be applied to any area in the province. It could conceivably be used to coordinate exurban development around major urban areas, if local planning is not effective. It could also protect rural provincial interests from exurban development, where the former UDIRA policy and local planning have failed to do so.

3. The Pits and Quarries Act

Now under the auspices of the Ministry of Natural Resources, The Pits and Quarries Act requires a number of site controls designed to reduce the noise, dust, and unattractive appearance of quarrying operations. The act is a step toward improving the appearance of the landscape, while at the same time ensuring some stability for the aggregate industry. However, this act does not define major aggregate resources, nor does it protect such resources from the incursion of country estates. Such estates can make it impossible to mine aggregates, even when they are located at a considerable distance from the deposits. At present, the province has no legislation or policy to define or protect major aggregate resources.

4. The Woodlot Improvement Act

This act, administered by the Ministry of Natural Resources, provides financial incentives for woodlot owners to develop a program of woodlot management. The owners are not obliged to participate, however, and some of them continue to cut all the best timber at one time, while others cut none, thinking thereby to preserve the aesthetic quality of a wooded environment.

While woodlots which could supply hardwood to nearby dependent wood-using industries should be used for that purpose, woodlots have other uses too: they conserve soil and regulate groundwater supplies; they offer opportunities for recreation; and they preserve an attractive rural landscape. At present neither legislation nor ministerial policies go so far as to identify and encourage appropriate woodlot uses.

C. THE LOCAL LEVEL

Although The Planning Act allows the municipalities to formulate planning policies by setting up official plans, it does not require them to do so, nor does it require them to pass the zoning by-laws necessary to put such policies into effect.

1. Severances

Prior to 1964, the granting of consents was the responsibility of local planning boards. In 1964 committees of adjustment were given this responsibility, and in 1970 land division committees came into existence to supervise severances in townships with no committees of adjustment. Committees of adjustment and land division committees have acted differently in different areas. Some committees have granted few consents for residential dwellings in rural areas. Other committees have adopted far more permissive policies, allowing residential development to occur almost anywhere in rural areas on very small parcels. Many local committees lack the expertise to follow the principles and guidelines established in official plans and zoning by-laws. In addition, such guidelines are often expressed too generally for effective application and lend themselves to various interpretations.

Thus, responsibility for controlling one of the most serious forms of exurban development is found at a level which is the least likely to be governed by provincial concerns. Committees of adjustment and land division committees are not responsible to an electorate and are not compelled to follow local policies--where such exist--policies which themselves may not recognize provincial concerns.

2. Official Plans and Zoning Coverage

Although most municipalities in Southwestern Ontario have official plans either in effect or in preparation, land-use proposals have no legal status unless implemented through zoning by-laws.

In rural municipalities, the zoning by-laws which form the basis of all official plans have had to serve two purposes: the protection of agricultural areas and the control of residential development. The zoning by-law may not be the best means of control, however, because such an instrument cannot be designed to establish standards applicable to areas with quite different physical or environmental characteristics.

Few rural municipalities in the study area have full zoning, and little better than half have even partial zoning (although a considerable number have full zoning "pending"). Map #16 illustrates zoning coverage in the study area. Of note is the situation in Essex County where, despite the rapid growth of exurban development, almost none of the townships involved have full zoning to guide such growth. Full zoning coverage is much more complete in the townships surrounding both London and Sarnia, although there are gaps. (Lobo and Caradoc townships west of London, and Plympton and Bosanquet townships east of Sarnia, have only partial zoning, though they are undergoing significant exurban development.)

Significant concentrations of municipalities with no zoning occur in the northern part of Huron County and the southern part of Bruce, as well as in the eastern part of Lambton and the western part of Middlesex. So far, exurban spread in these areas has been light.

Zoning in Southwestern Ontario thus appears to be inadequate to control exurban development.

3. Planning Areas

According to The Planning Act, planning areas "shall consist of part or all of one municipality" or parts of others which constitute complete planning units. Where two or more planning areas constitute a planning unit, that unit is termed a "joint planning area." Its constituent areas are termed "subsidiary planning areas," while lone planning areas are "single independent planning areas."

The real planning power usually lies with the municipality, i.e., in the subsidiary or single independent planning area, the purpose of the joint

SOUTHWESTERN ONTARIO STUDY AREA

MAP 16

COVERAGE BY ZONING BY-LAWS

FULL ZONING

ZONING BY-LAWS PENDING

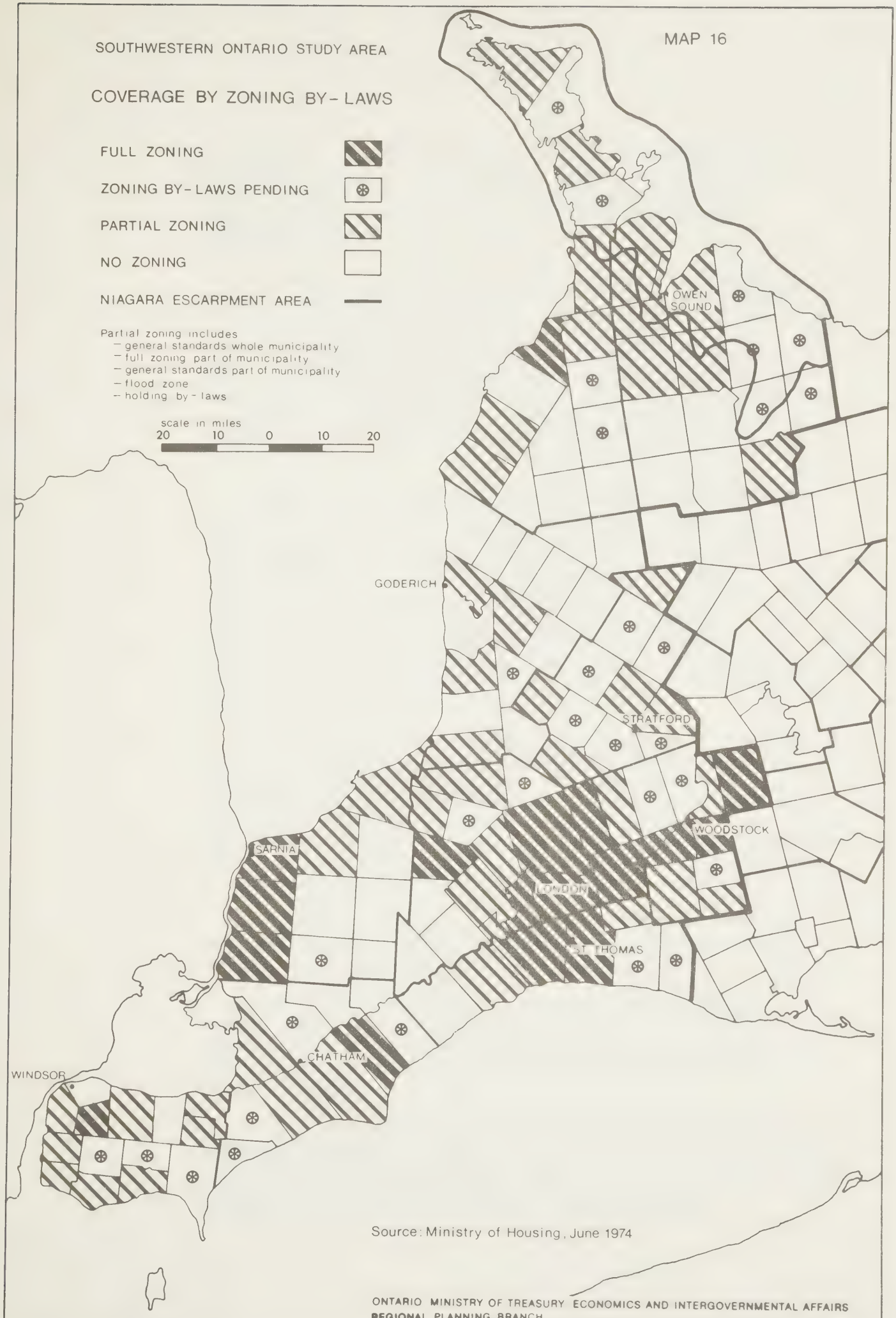
PARTIAL ZONING

NO ZONING

NIAGARA ESCARPMENT AREA

Partial zoning includes
- general standards whole municipality
- full zoning part of municipality
- general standards part of municipality
- flood zone
- holding by-laws

scale in miles
20 10 0 10 20



Source: Ministry of Housing, June 1974

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REGIONAL PLANNING BRANCH

area being to remove inconsistencies between the subsidiary units. It is the local councils that accept or reject planning recommendations and that draft by-laws to put the chosen planning recommendations into effect.

As shown on Map #17, the largest planning units are found in the northern section of the study area, where growth is slower and land-use problems fewer. In the southern section, many rural townships near major urban centres have high rural non-farm growth rates, as well as land-use problems related to exurban development; yet planning areas here are small and rarely extend beyond the boundaries of individual townships.

Despite the fact that regional-scale planning in the northern section only recently began to gain acceptance, Grey, Bruce, and Huron counties will shortly be entirely covered by official plans on a county or regional scale and will have full-time professional planning staff. On the other hand, such a critical area of exurban development as rural Essex County is covered by no less than eleven totally autonomous planning units, none of which (at the time of writing) has planning staff.

Another area of large-scale exurban development, the London-Woodstock-St. Thomas area, falls under four joint planning areas. However, the 26 subsidiary planning areas within the joint areas have historically operated autonomously. Also (apart from Oxford County, where professional staff are hired by the county), only three planning areas have professional staff.

Lambton and Perth counties, despite the fragmented pattern of their planning areas, also retain professional planning staff.

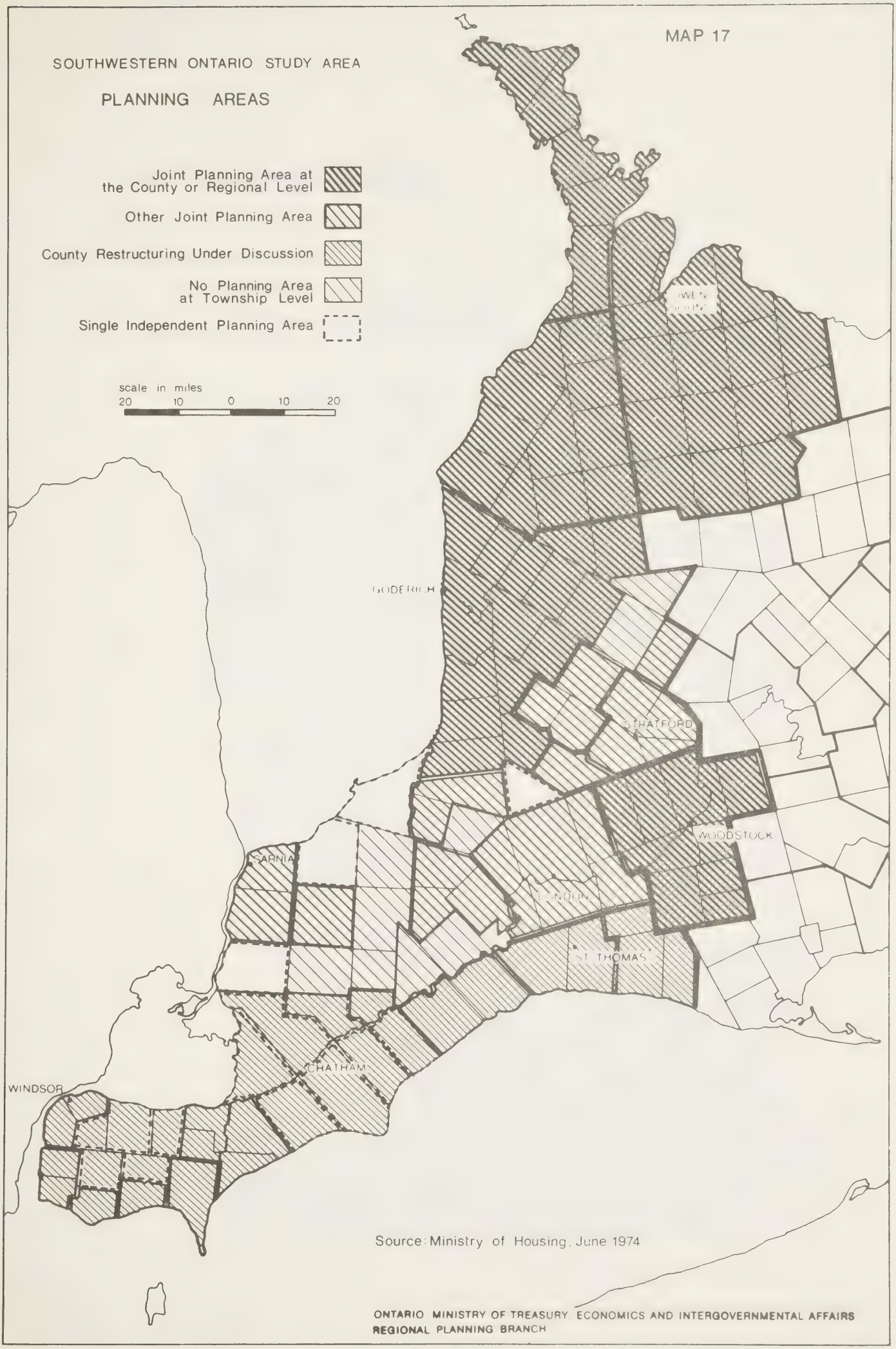
County restructuring has been effected in Oxford County and is under discussion for the counties of Elgin, Essex, and Kent. Restructuring could lead to more emphasis on planning at the county level.

Like the pattern of zoning coverage, the present pattern of planning areas is not the best one for following the province's planning priorities, especially in areas where approaches to local planning problems are poorly coordinated.

MAP 17

SOUTHWESTERN ONTARIO STUDY AREA

PLANNING AREAS



Source: Ministry of Housing, June 1974

ONTARIO MINISTRY OF TREASURY, ECONOMICS AND INTERGOVERNMENTAL AFFAIRS
REGIONAL PLANNING BRANCH

VII. SUMMARY AND RECOMMENDATIONS

A. SUMMARY

Exurban development in Southwestern Ontario has affected the area's rural resources in several ways.

1. Agricultural Resources

Direct loss of farmland through urban and exurban development has not been excessive. The area's greatest losses occurred in Grey and Bruce counties, where factors other than exurban development, such as marginal farming conditions and distance to markets, have been primarily responsible for such losses. The main effects of exurban development on farming have been to diversify the character and ownership structure rather than to reduce the actual extent. Nevertheless, such diversification may affect farm operation and food production as seriously as farmland loss.

a. Rented Farmland

For example, city people may purchase a farm for a country home and rent part of the land to adjacent farmers. Also, developers may purchase land for its ultimate development potential and rent it in the interim.

Extensive areas of rented farmland exist, and are expanding, near the major urban areas of London and Windsor. Rented farmland is less extensive around Sarnia and Owen Sound, but is increasing significantly in the Collingwood-Beaver Valley area. It is unlikely that a farmer will invest long-term capital in rented farmland, and in fact he may over-work the soil to obtain high yields over the short term. It is preferable for the sake of long-term food production that the farmer own his own land. High land values near urban areas, however, make acquisition prohibitively expensive, and farm enlargement has suffered in the major exurban areas.

b. Part-time Farming

To facilitate data analysis, a "weekend farmer" has been defined in this report as one working off the farm for 229 days or more per year. Whether the part-time farmer is an exurban hobby farmer or a former farm operator, weekend farming represents a significant form of exurban growth around London, Windsor, Sarnia, and, to a lesser degree, Owen Sound. If the weekend "farmer" is a new farm owner from the city, his interest is less likely to lie in food production than in non-food hobby farming. If the weekend "farmer" is a former farm operator seeking additional income through non-farm employment, then he probably no longer has the time to use his land efficiently for food production.

c. Amenity Agriculture

Although amenity agriculture does not physically close options for future food production, the value of land being so used--often as hobby farms by wealthy city people--will be well beyond what farmers are able to pay. Thus, for economic reasons, amenity agriculture lands are unlikely to revert to food production.

As shown in data pertaining to horse-breeding, non-food "agriculture" is increasing around some of the major urban areas, at the expense of food production.

d. Non-Farm Neighbours

Exurban neighbours also inhibit farm operations through their objections to such farm practices as spraying and manuring, or even to machine noise. Blowing dust is also unpopular. The Agricultural Code of Practice of the Ministry of Agriculture and Food forbids building new farm buildings within 2,000 feet of non-farm residences. Census data for rural non-farm residences shows this latter prohibition may create difficulties for farmers in Essex, Middlesex, and Lambton counties.

e. Fragmentation of Farm Land

Dividing farmland into small parcels makes it difficult for neighbouring farmers to acquire additional farmland. The residual fields thus created--or created by exurban owners' neglect of land parcels larger than they can use--result in serious weed problems for nearby farm operators.

2. Recreational Resources

Since Southwestern Ontario's major recreational resources are at some distance from its major urban centres, these resources have been less affected by exurban development than has agriculture. However, new permanent residents may oppose the development and enlargement of recreational resources near their homes which temporary users would have tolerated. The high demand for private recreation land has been satisfied at the cost of reducing the supply of good beachland, building dense subdivisions in the scenic Blue Mountain area, and hindering public access to unique physical features such as the Bruce Trail, many sections of which are now closed to hikers. At the same time, the high demand for public recreation land has made it necessary to acquire this land, often at high prices, in areas of unique resources, such as Wasaga Beach and the Niagara Escarpment, and near major urban centres, for such purposes as day-use Conservation Areas.

3. Minerals and Forests

Again, since these resources are far from the cities, exurban development has affected them very little. However, as the demand for more country homes increases in northern and central Grey County, the mineral and forest resources which are concentrated there will become increasingly inaccessible.

B. RECOMMENDATIONS

1. The Provincial Level

The province has recognized the problems inherent in a multitude of municipal planning jurisdictions. The Honourable Darcy McKeough noted in his budget statement of 1972:

> "... there are simply too many municipalities. Municipal governments, over 900 of them, cannot be expected to deal effectively with problems that are common to the residents of wider local areas ... .
>
> "The present fragmented system of so many decision-makers distorts local decisions and land use policies, leading to competition for prestigious developments and assessment dollars at the expense of more rational planning and balanced priorities."[1]

Shortly thereafter, in his statement on Design for Development Phase Three, Mr. McKeough stated:

> "If over 900 municipalities believe they have the right to exploit their physical resources to minimize tax burdens, the rational use of our resources will be lost. Our policies must be directed to the broadening of local planning ..."[2]

Therefore, the government may wish to consider the following courses of action.

a. The province could clearly identify and protect rural resources of provincial concern, such as good farmland, major aggregate deposits, and prime recreational land.

b. The province could develop countryside management policies for all rural resources, with guidelines for choosing among competing land uses.

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[1] McKeough, The Hon. Darcy W., Treasurer of Ontario, 1972 Ontario Budget, pp. 16-17, Legislative Assembly of Ontario, March 1972.

[2] McKeough, The Hon. Darcy W., Treasurer of Ontario, Design for Development, Phase III, p. 6, founding convention of the Association of Municipalities of Ontario, June 1972.

c. More specifically, the province could protect good agricultural soils against development and could investigate the potential of lower-quality land for certain forms of agriculture.

d. The province could examine some potential uses of woodlots, such as timber production, maple sugar production, soil and water conservation, recreation, and home-sites. The province may then wish to draft a policy to protect woodlots and encourage their owners to use them in the way that seems most appropriate.

e. Where outright purchase is prohibitively expensive, the province could ensure public access through easements to major recreation resources such as beaches, viewpoints, waterfalls, and unusual flora, fauna, or geology.

f. The province could coordinate the development of aggregates so as to reduce the prospect of conflicts with other forms of land use. (When the deposits are worked out, the site can be used for other forms of development.)

g. As a first step in easing exurban pressures on rural resources, the UDIRA policy could be applied to <u>all</u> forms of exurban development, including severances, mobile-home parks, and cottage conversions, to ensure that such development is permitted only near urban centres capable of providing adequate servicing.

2. <u>The Local Level</u>

a. Existing planning legislation gives the initiative in formulating rural policy to local jurisdictions, which may take only a limited interest in provincial priorities. Revised legislation could ensure that provincial priorities for rural resources provide the framework within which local policies are formulated.

b. In areas of major exurban development, the local planning jurisdictions, understandably concerned with local issues, may have difficulty in coping with the larger geographic problems of exurban spread. As one means of handling these large problems, planning could be coordinated in larger geographical areas by a policy-making body responsible to an electorate.

3. The Federal Level

Farm enlargement programs such as that under ARDA should recognize the special problems in areas of exurban spread, problems such as high land values and the awkward parcelling of land due to lot severances and older subdivisions.

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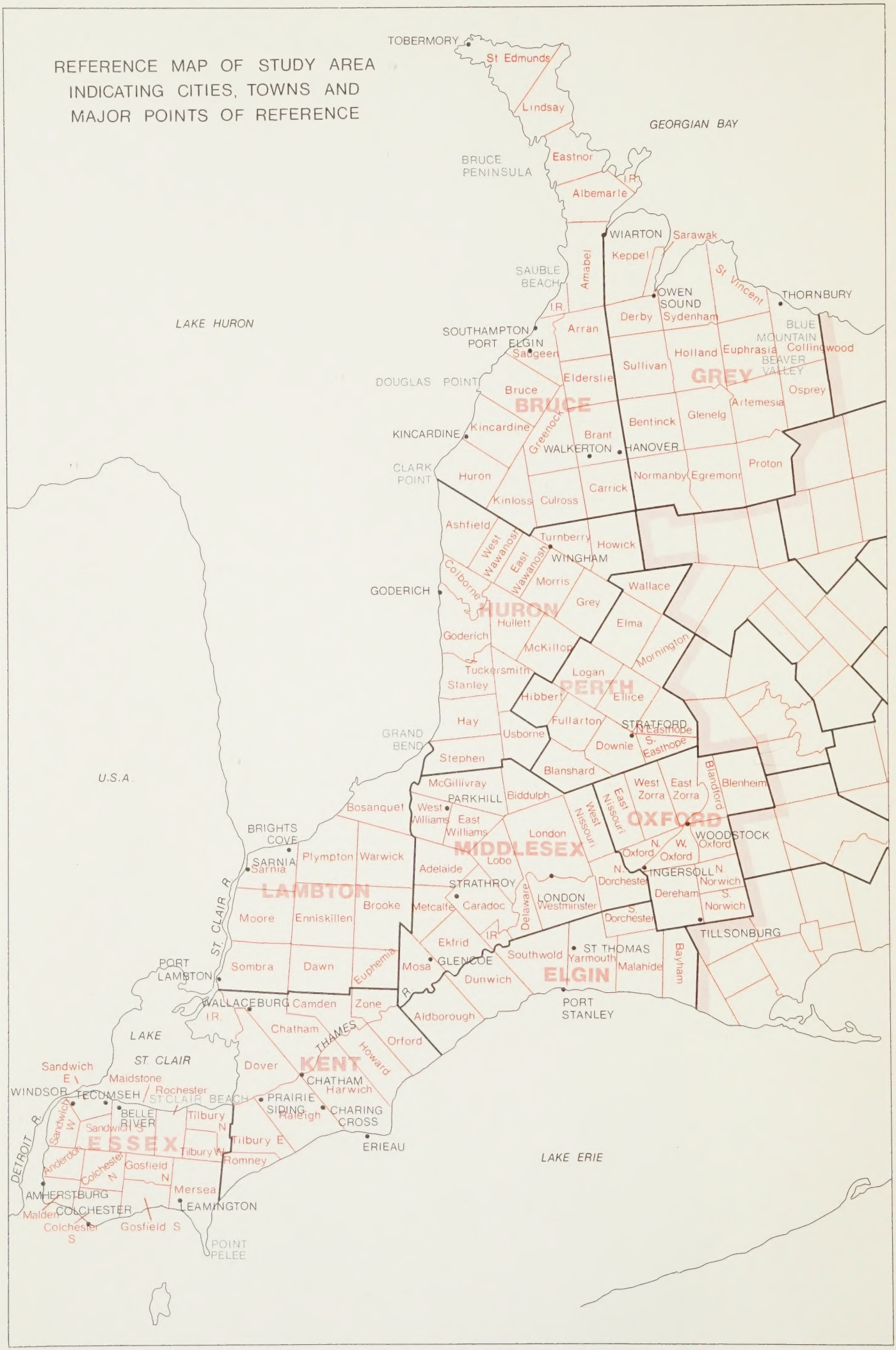
REFERENCE MAP OF STUDY AREA
INDICATING CITIES, TOWNS AND
MAJOR POINTS OF REFERENCE
TOBERMORY
St Edmunds
Lindsay
GEORGIAN BAY
BRUCE
PENINSULA
Eastnor
I.R.
Albemarle
WIARTON
Sarawak
Keppel
Amabel
SAUBLE
BEACH
St Vincent
OWEN
SOUND
THORNBURY
I.R.
Derby
Sydenham
LAKE HURON
SOUTHAMPTON
PORT ELGIN
Arran
BLUE
MOUNTAIN
Collingwood
Saugeen
Holland
Euphrasia
BEAVER
VALLEY
Sullivan
GREY
Elderslie
DOUGLAS POINT
Bruce
BRUCE
Osprey
Artemesia
Bentinck
Glenelg
KINCARDINE
Kincardine
Greenock
Brant
WALKERTON
HANOVER
CLARK
POINT
Huron
Normanby
Egremont
Proton
Carrick
Kinloss
Culross
Ashfield
Turnberry
Howick
West
Wawanosh
East
Wawanosh
WINGHAM
Colborne
Morris
Wallace
GODERICH
Grey
HURON
Hullett
Elma
Goderich
McKillop
Mornington
Tuckersmith
Logan
Stanley
PERTH
Hibbert
Ellice
Hay
Fullarton
STRATFORD
N. Easthope
GRAND
BEND
Usborne
Downie
S. Easthope
Stephen
Blanshard
U.S.A.
McGillivray
West
Zorra
East
Zorra
Blenheim
Blandford
PARKHILL
Biddulph
Bosanquet
West
Williams
East
Williams
West
Nissouri
East
Nissouri
OXFORD
London
WOODSTOCK
BRIGHTS
COVE
N.
Oxford
W.
Oxford
Oxford
SARNIA
Sarnia
Plympton
Warwick
Lobo
MIDDLESEX
Adelaide
N.
Dorchester
INGERSOLL
N.
Norwich
STRATHROY
Dereham
S.
Norwich
LAMBTON
Brooke
Metcalfe
Caradoc
Delaware
LONDON
Westminster
S.
Dorchester
ST. CLAIR R.
Moore
Enniskillen
TILLSONBURG
I.R.
Ekfrid
Southwold
ST THOMAS
Yarmouth
Bayham
PORT
LAMBTON
Sombra
Dawn
Euphemia
Mosa
GLENCOE
Malahide
ELGIN
Dunwich
WALLACEBURG
I.R.
Camden
Zone
PORT
STANLEY
Aldborough
Chatham
THAMES R.
Howard
Orford
LAKE
ST. CLAIR
Dover
KENT
Sandwich
E.
Maidstone
CHATHAM
Harwich
WINDSOR
TECUMSEH
Rochester
ST CLAIR BEACH
PRAIRIE
SIDING
Raleigh
CHARING
CROSS
Sandwich
W.
BELLE
RIVER
Tilbury
N.
Sandwich
S.
ESSEX
Tilbury E.
Tilbury W.
ERIEAU
LAKE ERIE
DETROIT R.
Anderdon
Colchester
N.
Gosfield
N.
Romney
Mersea
AMHERSTBURG
LEAMINGTON
Malden
COLCHESTER
Colchester
S.
Gosfield S.
POINT
PELEE